



SAN FRANCISCO PLANNING DEPARTMENT

Planning Commission Motion No. XXXXX

HEARING DATE: May 14, 2020

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Case No.: 2015-000940ENV, 2017-008051ENV, and 2016-014802ENV
Project Address: The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District
Zoning: NCT-3 (Neighborhood Commercial), C-3-G (Downtown General Commercial), Hayes NCT (Hayes Neighborhood Commercial), and P (Public) Districts Height and Bulk Districts
Block/Lot: Multiple Blocks and Lots (The Hub Plan and Hub HSD), Block 0835/Lot 004 (30 Van Ness Avenue Project site), Block 0836/Lots 008, 009, 013 (98 Franklin Street Project site)
Project Sponsor: Lily Langlois, Planning Department, (415) 575-9083 or lily.langlois@sfgov.org (The Hub Plan and Hub HSD); Samidha Thakral, 30 Van Ness Development, LLC, (415) 995-4857 or samidha.thakral@lendlease.com (30 Van Ness Avenue); Matt Witte, Related California, (949) 697-8123 or matthew.witte@related.com (98 Franklin Street)
Staff Contact: Alana Callagy, San Francisco Planning Department, (415) 575-8734 or alana.callagy@sfgov.org

ADOPTING FINDINGS RELATED TO THE CERTIFICATION OF A FINAL ENVIRONMENTAL IMPACT REPORT FOR THE HUB PLAN, THE 30 VAN NESS AVENUE PROJECT, THE 98 FRANKLIN STREET PROJECT, AND HUB HOUSING SUSTAINABILITY DISTRICT.

MOVED, that the San Francisco Planning Commission (hereinafter "Commission") hereby CERTIFIES the Final Environmental Impact Report (hereinafter "FEIR") identified as Case Nos. 2015-000940ENV, 2017-008051ENV, and 2016-014802ENV, "The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District" in the Hub Plan area (hereinafter "the Project"), based upon the following findings:

1. The Hub Area is an irregular area bounded by portions of Haight Street, Gough Street, Franklin Street, Fell Street, Van Ness Avenue, Hayes Street, Market Street, midblock between 10th Street and 11th Street from Market Street to Mission Street, Mission Street, Washburn Street, Minna Street, midblock between Lafayette Street and 12th Street to Howard Street, Howard Street, and 13th Street, totaling approximately 84 acres.
2. The Hub Plan would include changes to height and bulk districts for select parcels. The proposed Hub Project would rezone the area to have two zoning districts, Downtown General Commercial (C-3-G) and Public (P), and the Van Ness and Market Residential Special Use District would be expanded to encompass the entire Hub Plan area. The plan also calls for public-realm improvements to streets and alleys within and adjacent to the hub plan area. Two individual private development

projects within the Hub Plan area are also evaluated. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a 47-story building with ground-floor retail space, 10 floors of office space, and approximately 37 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the existing 100-space surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades 9– 12 of the French American International School).

3. The proposed zoning changes in the Hub Plan would result in more cohesive zoning in the Hub area and more flexibility and variety of nonresidential uses allowed while increasing the residential capacity and application of consistent zoning controls and impact fees across the hub plan area.
4. The project includes designation of a housing sustainability district which, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City and County of San Francisco to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements.
5. The City and County of San Francisco, acting through the Planning Department (hereinafter “the Department”) fulfilled all procedural requirements of the California Environmental Quality Act (Cal. Pub. Res. Code Section 21000 *et seq.*, hereinafter “CEQA”), the State CEQA Guidelines (Cal. Admin. Code Title 14, Section 15000 *et seq.*, hereinafter “CEQA Guidelines”) and Chapter 31 of the San Francisco Administrative Code (hereinafter “Chapter 31”).
 - A. The Department determined that an Environmental Impact Report (hereinafter “EIR”) was required and provided public notice of that determination by publication in a newspaper of general circulation on May 23, 2018.
 - B. The Department published the Draft EIR (hereinafter “DEIR”) on July 24, 2019, and provided public notice in a newspaper of general circulation of the availability of the DEIR for public review and comment and of the date and time of the Planning Commission public hearing on the DEIR; this notice was mailed to the Department’s list of persons requesting such notice and to property owners and occupants within a 300-foot radius of the site on July 24, 2019.
 - C. Notices of availability of the DEIR and of the date and time of the public hearing were posted near the project site by the project sponsor on July 24, 2019.
 - D. Copies of notices of availability of the DEIR or the DEIR were mailed or otherwise delivered to a list of persons requesting it, to those noted on the distribution list in the DEIR, to adjacent property owners, and to government agencies, the latter both directly and through the State Clearinghouse, on July 24, 2019.
 - E. A Notice of Completion was filed with the State Secretary of Resources via the State Clearinghouse on July 24, 2019.

6. The Commission held a duly advertised public hearing on said DEIR on August 29, 2019, at which opportunity for public comment was given, and public comment was received on the DEIR. The period for acceptance of written comments ended on September 9, 2019.
7. The Department prepared responses to comments on environmental issues received at the public hearing and in writing during the public review period for the DEIR, prepared revisions to the text of the DEIR in response to comments received or based on additional information that became available during the public review period, and corrected errors in the DEIR. This material was presented in the Responses to Comments (hereinafter "RTC") document published on March 12, 2020, distributed to the Commission and all parties who commented on the DEIR, and made available to others upon request at the Department.
8. An FEIR has been prepared by the Department, consisting of the DEIR, any consultations and comments received during the review process, any additional information that became available, the RTC document, and an Errata to the EIR dated April 20, 2020, all as required by law.
9. Project EIR files have been made available for review by the Commission and the public. These files are available for public review at the Department at 1650 Mission Street, Suite 400, and are part of the record before the Commission.
10. On May 14, 2020, the Commission reviewed and considered the information contained in the FEIR and hereby does find that the contents of said report and the procedures through which the FEIR was prepared, publicized, and reviewed comply with the provisions of CEQA, the CEQA Guidelines, and Chapter 31 of the San Francisco Administrative Code.
11. The project sponsors have indicated that the presently preferred alternative is the Project analyzed in the FEIR.
12. The Planning Commission hereby does find that the FEIR concerning File Nos. 2015-000940ENV, 2017-008051ENV, and 2016-014802ENV reflects the independent judgment and analysis of the City and County of San Francisco, is adequate, accurate, and objective, and that the RTC document and the Errata dated April 20, 2020 contain no significant revisions to the DEIR, and hereby does CERTIFY THE COMPLETION of said FEIR in compliance with CEQA, the CEQA Guidelines, and Chapter 31.
13. The Commission, in certifying the completion of said FEIR, hereby does find that the Project described in the FEIR:
 - A. Will have significant and unavoidable project-level environmental effects related to cultural resources, transportation and circulation, noise, shadow, and air quality; and
 - B. Will have significant and unavoidable cumulative environmental effects related to cultural resources, transportation and circulation, noise, air quality, shadow, and wind.
14. The Planning Commission reviewed and considered the information contained in the FEIR prior to approving the Project.

**Motion No. XXXXX
May 14, 2020**

**CASE NOS. 2015-000940ENV, 2017-008051ENV, and 2016-014802ENV
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and
Hub Housing Sustainability District**

I hereby certify that the foregoing Motion was ADOPTED by the Planning Commission at its regular meeting of May 14, 2020.

Jonas P. Ionin
Commission Secretary

AYES:

NOES:

ABSENT:

ADOPTED: May 14, 2020



DRAFT ENVIRONMENTAL IMPACT REPORT

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District

Volume I – DEIR

PLANNING DEPARTMENT

CASE NOS. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

STATE CLEARINGHOUSE NO. 2018052060



SAN FRANCISCO
PLANNING
DEPARTMENT

Draft EIR Publication Date:	July 24, 2019
Draft EIR Public Hearing Date:	August 29, 2019
Draft EIR Public Comment Period:	July 25, 2019 – September 9, 2019

Written comments should be sent to:

Elizabeth White, Senior Environmental Planner | 1650 Mission Street, Suite 400 | San Francisco, CA 94103 | CPC.HubPlanEIR@sfgov.org



SAN FRANCISCO PLANNING DEPARTMENT

DATE: July 24, 2019

TO: Distribution List for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District Draft EIR

FROM: Lisa Gibson, Environmental Review Officer

SUBJECT: Request for the Draft Environmental Impact Report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (Planning Department Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV)

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This is the Draft of the Environmental Impact Report (EIR) for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District. A public hearing will be held on the adequacy and accuracy of this document. After the public hearing, our office will prepare and publish a document titled "Responses to Comments," which will contain a summary of all relevant comments on this Draft EIR and our responses to those comments. It may also specify changes to this Draft EIR. Those who testify at the hearing on the Draft EIR will automatically receive a copy of the Responses to Comments document, along with notice of the date reserved for certification; others may receive a copy of the Responses to Comments and notice by request or by visiting our office. This Draft EIR together with the Responses to Comments document will be considered by the Planning Commission in an advertised public meeting and will be certified as a Final EIR if deemed adequate.

After certification, we will modify the Draft EIR as specified by the Responses to Comments document and print both documents in a single publication called the Final EIR. The Final EIR will add no new information to the combination of the two documents except to reproduce the certification resolution. It will simply provide the information in one document, rather than two. Therefore, if you receive a copy of the Responses to Comments document in addition to this copy of the Draft EIR, you will technically have a copy of the Final EIR.

We are aware that many people who receive the Draft EIR and Responses to Comments have no interest in receiving virtually the same information after the EIR has been certified. To avoid expending money and paper needlessly, we would like to send copies of the Final EIR [in Adobe Acrobat format on a CD] to private individuals only if they request them. Therefore, if you would like a copy of the Final EIR, please fill out and mail the postcard provided inside the back cover to the Environmental Planning division of the Planning Department within two weeks after certification of the EIR. Any private party not requesting a Final EIR by that time will not be mailed a copy. Public agencies on the distribution list will automatically receive a copy of the Final EIR.

Thank you for your interest in this project.

DRAFT ENVIRONMENTAL IMPACT REPORT

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District

PLANNING DEPARTMENT

CASE NOS. **2015-000940ENV, 2017-008051ENV, 2016-014802ENV**

STATE CLEARINGHOUSE NO. 2018052060



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Draft EIR Publication Date:	July 24, 2019
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SUMMARY

INTRODUCTION

This environmental impact report (EIR) chapter provides a brief summary of the findings of the EIR regarding the proposed Hub Plan,¹ 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), and their potential environmental consequences. The chapter includes a summary of the project description; the environmental analysis, including environmental impacts and mitigation measures identified in this EIR; alternatives to the Hub Plan, two individual development projects, the Hub HSD, and their comparative environmental effects; and areas of controversy and issues to be resolved.

This summary should not be relied upon for a thorough understanding of the Hub Plan, the two individual development projects, the Hub HSD, their environmental impacts, or mitigation measures. Please refer to Chapter 1, Introduction, for a more complete description of the type of environmental analysis contained in this EIR; Chapter 2, Project Description, for a more complete description of the Hub Plan, two individual development projects, and the Hub HSD; Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, for a more complete description of associated impacts and mitigation measures, and Chapter 5, Alternatives, for a more complete description of identified alternatives to the Hub Plan, two individual development projects, and the Hub HSD and the comparative impacts.

PROJECT SYNOPSIS

The project sponsor for the Hub Plan and the Hub HSD, the San Francisco Planning Department (department), proposes to develop the Hub Plan, which would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan for the easternmost portions of the Market and Octavia Area Plan. The Hub Plan would encourage housing and safer and more walkable streets, as well as welcoming and active public spaces and increased transportation options by changing current zoning controls applicable to the area and implementing public realm improvements. In addition, the department proposes the designation of all or portions of the Hub Plan area as an HSD to allow the City of San Francisco (City) to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements. The project sponsor for the 30 Van Ness Avenue Project, 30 Van Ness Development, LLC, proposes partial retention of the existing office/retail building and construction of a 45-story building with ground-floor retail space, up to 11 floors of office space, and 33 floors of residential space. The project sponsor for the 98 Franklin Street Project, a partnership between Related California and

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

the International High School (grades 9–12 of the French American International School [FAIS]), proposes demolition of an existing 100-space surface parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new facilities for the International High School (grades 9–12 of the FAIS). In addition, the 98 Franklin Street Project proposes improvements to Lily Street between Gough and Franklin streets, including a midblock crossing on Lily Street between Franklin and Gough streets (to connect FAIS properties at 150 Oak Street, one block west of 98 Franklin Street), as well as improvements on the western portion of Oak Street between Van Ness Avenue and Franklin Street.

The Hub Plan would change current zoning controls in the Hub Plan area to meet plan objectives. This would include changes to height and bulk districts for select parcels to allow more housing, including more affordable housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically office, institutional, art, and public uses. In addition, requirements for micro retail² would encourage a mix of retail sizes and uses and decrease off-street vehicular parking capacity within the Hub Plan area, a transit-rich location, by reducing the currently permitted off-street vehicular parking maximums. The Hub Plan also calls for public-realm improvements to streets and alleys within and adjacent to the Hub Plan area, such as sidewalk widening, streetlight upgrades, median realignment, road and vehicular parking reconfiguration, tree planting, the elimination of one segment of travel on Duboce Avenue, and the addition of bulb-outs.

The Hub Plan seeks to increase the space available for housing through changes to the planning code and zoning map to allow the development of a taller, larger, denser, and more diverse array of buildings and heights on select parcels within the Hub Plan area. The proposed zoning under the Hub Plan would allow for additional height at the two major intersections at Market Street and Van Ness Avenue and Mission Street and South Van Ness Avenue, with towers ranging from 250 to 650 feet. This proposed zoning would allow increases in heights for 18 sites. If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,100 new residential units (approximately 15,700 new residents). This estimate also assumes a 15 percent increase in the number of units to account for potential density bonuses allowed by either state or local regulations.

The Hub Plan area, which is irregular in shape and approximately 84 acres, is spread across various city neighborhoods, such as the Downtown/Civic Center, South of Market (SoMa), Western Addition, and Mission neighborhoods. The Hub Plan area is entirely within the boundaries of the Market and Octavia Area Plan. In addition to the streets in the Hub Plan area, adjacent streets such as Lily Street between Gough Street and Franklin Street, Minna Street between 10th Street and Lafayette Street, and Duboce Avenue between Valencia Street and Mission Street are included in the project.

² A micro retail unit is defined as retail space of 1,000 square feet or less.

PROGRAMMATIC AND PROJECT-SPECIFIC ANALYSIS

This EIR contains both analysis at a “program-level” pursuant to California Environmental Quality Act (CEQA) Guidelines section 15168 for adoption and implementation of the Hub Plan and “project-level” environmental review for the streetscape and street network improvements and the two individual development projects. A program EIR is appropriate for a project that will involve a series of actions that are (1) related geographically, (2) logical parts in a chain of contemplated actions, (3) connected as part of a continuing program, and (4) carried out under the same authorizing statute or regulatory authority and have similar environmental impacts that can be mitigated in similar ways (CEQA Guidelines section 15168).

The EIR’s evaluation of the Hub Plan, excluding the streetscape and street network improvements, is programmatic. Its assessment of potential environmental impacts is based on the various Hub Plan components that are required for its implementation and would facilitate its goals and objectives. CEQA Guidelines section 15168 notes that the use of a programmatic EIR “ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis; avoids duplicative reconsideration of basic policy considerations; allows the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time, when the agency has greater flexibility to deal with basic problems or cumulative impacts; and allows for a reduction in paperwork.”

With respect to the proposed streetscape and street network improvements and two individual development projects described in Chapter 2, Project Description, these components are analyzed in this EIR at the project level due to the sufficiency of detailed information available.

Lastly, this Draft EIR evaluates designation of portions or all of the Hub Plan area as an HSD, in accordance with Assembly Bill 73 (Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11). Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects that meet certain requirements within the HSD. Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards as well as all existing City laws and regulations but would not require additional CEQA analysis.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

This EIR analyzes the potential environmental effects of the Hub Plan, including the streetscape and street network improvements, the two individual development projects, and the Hub HSD. The department published a Notice of Preparation (NOP) on May 23, 2018, announcing its

intent to prepare and distribute an EIR (Appendix A). The NOP requested that agencies and interested parties comment on environmental issues that should be addressed in the EIR. A scoping meeting was held on June 12, 2018, to explain the environmental review process and provide an opportunity to take public comments and concerns related to the potential environmental impacts of the Hub Plan, the two individual development projects, and the Hub HSD. The department considered the public comments received at the scoping meeting and prepared an initial study in order to focus the scope of the EIR by assessing which environmental topics would not result in significant impacts on the environment. The initial study is provided as part of this EIR, in Appendix B.

The initial study found that the Hub Plan, the two individual development projects, and the Hub HSD would have potentially significant impacts in the areas of cultural resources, transportation and circulation, noise, air quality, wind, and shadow. Accordingly, these topics are evaluated in this EIR. The initial study also found that impacts on the remaining environmental topics that are required to be examined under the CEQA Guidelines and chapter 31 of the San Francisco Administrative Code would be less than significant, less than significant with mitigation measures, or would have no impact, and, therefore, need not be considered in the EIR.

This summary provides an overview of the analysis contained in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures. Impacts are categorized by type of impact, as follows:

- **No Impact.** No adverse changes (or impacts) to the environment are expected.
- **Less than Significant.** An impact that would not involve an adverse physical change to the environment, would not exceed the defined significance criteria, or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.
- **Less than Significant with Mitigation.** An impact that would be reduced to a less-than-significant level through implementation of the identified mitigation measure.
- **Significant and Unavoidable with Mitigation.** An adverse physical environmental impact that would exceed the defined significance criteria but could be reduced through compliance with existing local, state, and federal laws and regulations and/or implementation of feasible mitigation measures. The impact cannot be reduced to a less-than-significant level.
- **Significant and Unavoidable.** An adverse physical environmental impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations. There are no feasible mitigation measures.

SIGNIFICANT AND UNAVOIDABLE IMPACTS

All impacts of the Hub Plan and the two individual development projects, its alternatives, and the associated mitigation measures identified in this EIR are summarized in **Table S-1**, p. S-12. The impacts are listed in the same order as they appear in the text of Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, of this EIR. The Hub Plan and the two individual development projects would result in the following significant and unavoidable impacts (including impacts that are significant and unavoidable with mitigation):

CULTURAL RESOURCES

- The Hub Plan could cause a substantial adverse change in the significance of individual built environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code. (Impact CUL-1)
- The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built environment resources. (Impact C-CUL-1)

TRANSPORTATION IMPACTS

- During construction, the Hub Plan would require a substantially extended duration or intense activity, and the secondary effects would create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit. (Impact TR-1)
- The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people walking, or people biking. (Impact TR-8)
- The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts. (Impact C-TR-1)
- The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts. (Impact C-TR-7)

NOISE IMPACTS

- During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards. (Impact NOI-1)

- Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards. (Impact C-NOI-1)

AIR QUALITY IMPACTS

- During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. (Impact AQ-5)
- The Hub Plan would result in emissions of fine particulate matter (particulate matter 2.5 microns in diameter or less [PM_{2.5}]) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. (Impact AQ-7)
- The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions. (Impact C-AQ-1)

WIND IMPACTS

- The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts. (Impact C-WI-1)

SHADOW IMPACTS

- The Hub Plan would create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces. (Impact SH-1)
- Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts. (Impact C-SH-1)

AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

As noted above, the department published an NOP on May 23, 2018, to notify the public of its intent to prepare and distribute an EIR for the Hub Plan, two individual development projects, and Hub HSD. During the public scoping process and at the public scoping meeting (held on June 12, 2018), the department received comments from public agencies, organizations, and individuals regarding the scope and content of the EIR, including comments on the design of the proposed project and its environmental effects.

Comments received during the scoping process on the Hub Plan, the two individual development projects, and the Hub HSD and its environmental effects are addressed in this EIR. This section lists the areas of controversy and major concerns raised during the scoping period as well as issues to be resolved, along with the location in the EIR where these issues are discussed. These include the following:

- Requests for the type of planning document to be specified (Chapter 2, Project Description).
- Concern about affordable housing to be provided under the Hub Plan (Chapter 2, Project Description).
- Requests for thorough analysis on the cumulative social impact of potential housing and office developments (Chapter 4, Other CEQA Considerations).
- Requests for discussion of steps to mitigate impacts on lower-income Tenderloin and SoMa community (Chapter 4, Other CEQA Considerations).
- Requests to analyze the project with a 1 vehicle mile traveled per capita threshold of significance (Section 3.B, Transportation).
- Requests for consideration of ride-hailing services impacts on loading and possible mitigation (Section 3.B, Transportation).
- Concern about parking and requests for zero private parking for all new developments in the neighborhood (Section 3.B, Transportation).
- Concern about mass transit impacts in the area (Section 3.B, Transportation).
- Requests for a community process where affected community members can give feedback on safer and walkable streets (Section 3.B, Transportation).
- Requests to include analysis of wind impacts on people walking and people biking (Section 3.E, Wind).
- Requests for additional alternatives with different parking ratios and traffic routes (Section 3.B, Transportation).

SUMMARY OF ALTERNATIVES

In addition to the Hub Plan, the two individual development projects, and the Hub HSD, this Draft EIR analyzes the environmental impacts of seven alternatives that were determined to represent a reasonable range of alternatives, as follows:

- **Hub Plan and Hub HSD No Project Alternative (Alternative A):** Alternative A considered in this EIR preserves the existing zoning and height and bulk controls in the Market and Octavia Area Plan and assumes no adoption of the Hub Plan or Hub HSD. No streetscape or street network improvements would occur, and the Hub Plan area would not be designated an HSD. However, Alternative A considers individual development projects in general with

the assumption that build-out of the 18 sites within the proposed Hub Plan boundaries, including the two sites at 30 Van Ness Avenue and 98 Franklin Street, would occur by 2040 and be developed according to current land use controls for zoning, height, and bulk specifications as specified in the Market and Octavia Area Plan. The total number of new residential units developed under Alternative A would be approximately 5,300 units.

- **Land Use Plan Only Alternative (Alternative B):** Alternative B assumes that the same policies and planning code and general plan amendments would be implemented as with the Hub Plan and Hub HSD, except that this alternative would exclude implementation of the Hub Plan's proposed streetscape and street network improvements in the Hub Plan vicinity. This alternative assumes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would occur, as under the proposed project. As such, development assumptions for this alternative would be the same as those for the Hub Plan and Hub HSD, including the addition in the Hub Plan area of approximately 8,100 residential units, which includes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Alternative B includes upzoning of the 18 sites, rezoning parcels from Neighborhood Commercial Transit (NCT) to Downtown General Commercial (C-3-G) zoning district, and extending the Van Ness and Market Downtown Residential Special Use District, as would occur with the proposed project. There would be no change to development intensity as compared to the proposed project.
- **Hub Plan Reduced Intensity Alternative (Alternative C):** Alternative C would modify the assumptions of what would occur at the 18 sites identified under the Hub Plan for height and bulk increases. Specifically, under Alternative C, the height increase and rezoning proposed at 99 South Van Ness Avenue, which contains a historical or potentially historical resources, would not occur, and this site would be removed from the project entirely. At 170 Otis Street, upzoning would still occur, but it would meet the Secretary of the Interior's standards. At 10 South Van Ness Avenue, the Full Preservation Alternative identified in the 10 South Van Ness Avenue EIR would be selected, under which the existing building at 10 South Van Ness Avenue, a historical resource, would undergo some changes but it would retain all of its exterior and interior character-defining features. In addition, upzoning would be reduced by 20 feet at 1 South Van Ness Avenue, 10 South Van Ness Avenue, 1500–1540 Market Street, 30 Van Ness Avenue, and 33 Gough Street.
- **30 Van Ness Avenue No Project Alternative (Alternative D):** Under Alternative D, the proposed individual development project at 30 Van Ness Avenue would be removed from the project and would not be built as proposed in this EIR and the existing conditions at 30 Van Ness Avenue would not change. The existing 75-foot office and retail building would remain, along with the existing ingress and egress points. As such, the proposed housing units, commercial square footage, parking, and streetscape improvements at 30 Van Ness Avenue would not be implemented.

- **30 Van Ness Avenue Reduced Intensity Alternative (Alternative E):** Alternative E includes partial retention of the existing office/retail building and construction of an approximately 11-story building with ground-floor retail space and 10 floors of office space, reaching a height of approximately 150 feet. In total, the existing structure would be altered and expanded from its current envelope of approximately 184,100 square feet to a total of up to approximately 365,000 square feet, including up to 15,000 square feet of retail and 350,000 square feet of general office. Alternative E does not include residential uses or a tower portion. In addition, Alternative E would include one below-grade garage level for vehicle and bicycle parking rather than two below-grade garage levels as included under the project.
- **98 Franklin Street No Project Alternative (Alternative F):** Under Alternative F, the proposed building at 98 Franklin Street would not be built. Existing conditions, which include an approximately 100-space surface parking lot, would be retained. No residential, school, or retail uses would be constructed, and no changes to curbside parking or loading would occur.
- **98 Franklin Street Reduced Intensity Alternative (Alternative G):** Alternative G proposes to build a 162,358-square-foot, 120-foot (10-story) building that includes 54,505 square feet of residential uses, 81,000 square feet of school uses, 23,753 square feet of parking uses, and 3,100 square feet of retail uses. Under this alternative, the FAIS would be located within five levels in the podium, and 47 residential units would be constructed in a five-story tower. The residential units would include 10 studios, 24 one-bedroom units, eight two-bedroom units, and five three-bedroom units. This alternative would also include 41 below-ground parking spaces, three car share spaces, 191 bicycle parking spaces, three loading spaces, and nine permanent employees.

Section 21002 of the CEQA Guidelines requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires that an environmentally superior alternative be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of the proposed project (CEQA Guidelines section 15126.6). **Table S-3**, p. S-75, compares the significant impacts of the Hub Plan and the two individual development projects to each alternative. The table compares the significance of impacts in two ways. One, for each impact studied, it identifies the level of impact for the project and each alternative (e.g., no impact, less-than-significant impact, less-than-significant impact with mitigation, significant and unavoidable impact, or significant and unavoidable impact with mitigation). Two, for each alternative, it indicates whether the degree of impact would be equal to, less than, or greater than that of the project impact. In some cases, although both the project and alternative would result in the same level of impact, the degree of impact with the alternative might be less than or greater than that of the project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Pursuant to CEQA Guidelines section 15126.6(e)(2), an EIR is required to identify the environmentally superior alternative (i.e., the alternative that has the fewest significant environmental impacts) from among the other alternatives evaluated. The Hub Plan and the two individual development projects would result in significant and unavoidable impacts related to cultural resources, transportation and circulation, noise, air quality, and shadow. On the basis of comparing the extent to which the alternatives reduce or avoid the significant impacts of the Hub Plan and the two individual development projects, Alternatives A, D, and F would be the environmentally superior alternatives because they would result in either fewer impacts or no impacts on resources. However, if Alternatives A, D, and F are the environmentally superior alternatives, then the EIR must also specify which of the other alternatives (including the proposed project) would be environmentally superior.

Among the alternatives to the Hub Plan, Alternative B would offer a lower level of impact by avoiding all of the project-specific impacts associated with the streetscape and street network improvements, specifically impacts on built environment and historic resources and construction-related impacts. However, development intensity in the Hub Plan area would remain the same as the Hub Plan. Alternative C would provide a greater reduction in impacts on built environment and historic resources and shadow by reducing development intensity in the Hub Plan area while retaining the streetscape and street network improvements. Alternative C would also meet more of the project objectives as compared to Alternative B. Therefore, among the Hub Plan alternatives, Alternative C is the environmentally superior alternative.

When examining the project-specific alternatives to the 30 Van Ness Avenue Project, Alternative E would be considered the environmentally superior alternative because it would reduce impacts on built environment and historic resources and shadow impacts when compared to the project while still meeting most of the project's objectives.

Similarly, among the 98 Franklin Street Project and its alternatives, Alternative G would be considered the environmentally superior alternative because it would also reduce impacts on built environment and historic resources and shadow impacts when compared to the project while still meeting most of the project's objectives.

SUMMARY TABLES

Table S-1, p. S-12, includes the impacts and mitigation measures identified in the EIR for the Hub Plan and the two individual development projects; **Table S-2**, p. S-58, includes the impacts and mitigation measures identified in the initial study for the Hub Plan and the two individual development projects; and **Table S-3**, p. S-75, includes a comparison of the significant impacts of the Hub Plan and the two individual development projects to the impacts of the alternatives. It also determines if the sponsor's objectives would be met by the Hub Plan and the two individual development projects and the alternatives.

The information in the tables is organized to correspond with environmental issues discussed in Chapter 3 of the EIR. **Table S-1**, p. S-12, and **Table S-2**, p. S-58, are arranged in four columns: (1) impacts, (2) level of significance prior to mitigation measures (if applicable), (3) mitigation and improvement measures (if applicable), and (4) level of significance after mitigation (if applicable). For a complete description of potential impacts and recommended mitigation measures, please refer to the topical sections in Chapter 3 of the EIR. This EIR also identifies improvement measures where applicable. Improvement measures are not required to reduce, avoid, or eliminate adverse physical changes. Instead, they are identified as ways to further reduce the magnitude of less-than-significant impacts. They may be adopted by decision-makers as conditions of project approval.

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Cultural Resources			
<p>Impact CUL-1: The Hub Plan could cause a substantial adverse change in the significance of individual built environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code.</p>	<p>S</p>	<p><i>M-CUL-1a: Avoid or Minimize Effects on Identified Built Environment Resources.</i> This mitigation measure is required in recognition of Objective 3.2 of the Market and Octavia Area Plan, to which the Hub Plan is an amendment. Objective 3.2 states that the Market and Octavia Area Plan shall “[p]romote the preservation of notable historic landmarks, individual historic buildings, and features that help to provide continuity with the past.” Policy 3.2.2 of the Market & Octavia Plan states that the plan shall “encourage rehabilitation and adaptive reuse of historic buildings and resources.” In order to meet Objective 3.2 and Policy 3.2.2, the project sponsor of a subsequent development project in the Hub Plan area that occurs on the site of a built environment historic resource or contributor to a historic district shall seek feasible means for avoiding significant adverse effects on historic architectural resources, with judgment of the significance of the impact to be based on the Secretary of the Interior’s Standards for Rehabilitation. If a project that conforms to the Secretary of the Interior’s Standards for Rehabilitation is not feasible, the project sponsor shall a.) demonstrate that infeasibility to the San Francisco Planning Department’s preservation staff, and b.) consult with the San Francisco Planning Department’s preservation and urban design staff to determine if effects on built environment resources should be minimized by retaining a portion of the existing building and incorporating it into the project, with the understanding that such minimization would still result in a significant adverse impact on historical resources. If retention of a portion of the existing building is not feasible, the project sponsor shall demonstrate that infeasibility to the San Francisco Planning Department’s preservation staff. California Environmental Quality Act Guidelines section 15364 defines “feasible” as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” For the purposes of this mitigation measure, economic factors will not be considered. The applicability of each factor would vary from project to project and be determined by staff members on a case-by-case basis.</p> <p><i>M-CUL-1b: Prepare and Submit Historical Documentation of Built Environment Resources.</i> Where avoidance is not feasible, as described in Mitigation Measure M-CUL-1a, the project sponsor of a subsequent development project in the Hub Plan area shall undertake historical documentation. The project sponsor shall retain a professional who meets the Secretary of the Interior’s Qualification Standards for Architectural Historian or Historian (36 Code of Federal Regulations part 61) and a photographer with demonstrated experience in Historic American Buildings Survey photography to prepare written and photographic documentation for the affected built environment resources. The Historic American Buildings Survey documentation package for each affected built environment resource shall be reviewed and approved by the San Francisco Planning</p>	<p>SUM</p>

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>Department’s preservation staff prior to the issuance of any demolition, site, or construction permit for the project.</p> <p>The documentation shall consist of the following:</p> <ul style="list-style-type: none"> • <i>Historic American Buildings Survey–level Photographs:</i> Historic American Buildings Survey standard large-format photography shall be used to document the built environment resources and surrounding context. The scope of the photographs shall be reviewed and approved by the San Francisco Planning Department’s preservation staff for concurrence, and all photography shall be conducted according to the current National Park Service Historic American Buildings Survey standards. The photograph set shall include distant/elevated views to capture the extent and context of the resource. <ul style="list-style-type: none"> ○ All views shall be referenced on a key map of the resource, including a photograph number with an arrow to indicate the direction of the view. ○ The draft photograph contact sheets and key map shall be provided to the San Francisco Planning Department’s preservation staff for review to determine the final number and views for inclusion in the final dataset. ○ Historic photographs identified in previous studies shall also be collected, scanned as high-resolution digital files, and reproduced in the dataset. • <i>Written Historic American Buildings Survey Narrative Report:</i> A written historical narrative, using the outline format, shall be prepared in accordance with the Historic American Buildings Survey Historical Report Guidelines. • <i>Measured Drawings:</i> A set of measured drawings shall be prepared to document the overall design and character-defining features of the affected built environment resource. Original design drawings of the resource, if available, shall be digitized and incorporated into the measured drawings set. The San Francisco Planning Department’s preservation staff shall assist the consultant in determining the appropriate level of measured drawings. • <i>Print-on-Demand Booklet:</i> Following preparation of the Historic American Buildings Survey photography, narrative report, and drawings, a print-on-demand softcover book shall be produced for the resource that compiles the documentation and historical photographs. The print-on-demand book shall be made available to the public for distribution. <p>Format of Final Dataset:</p> <ul style="list-style-type: none"> • The project sponsor shall contact the History Room of the San Francisco Public Library, San Francisco Planning Department, Northwest Information Center, and California Historical Society to inquire as to whether the research repositories would like to receive a hard or digital copy of the final dataset. Labeled hard copies and/or digital copies of the final book, containing the photograph sets, narrative report, and measured drawings, shall be provided to these 	

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>repositories in their preferred format.</p> <ul style="list-style-type: none"> The project sponsor shall prepare documentation for review and approval by the San Francisco Planning Department’s preservation staff, along with the final Historic American Buildings Survey dataset, that outlines the outreach, response, and actions taken with regard to the repositories listed above. The documentation shall also include any research conducted to identify additional interested groups and the results of that outreach. The project sponsor shall make digital copies of the final dataset, which shall be made available to additional interested organizations, if requested. <p><i>M-CUL-1c: Develop and Implement an Interpretive Program for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District.</i> For projects that would demolish or materially alter a historical resource or contributor to a historic district, the project sponsor shall work with the San Francisco Planning Department’s preservation staff or other qualified professionals to institute an interpretive program onsite that references the property’s history and the contribution of the historical resource to the broader neighborhood or historic district. The interpretive program would include the creation of historical exhibits, incorporating a permanent display featuring historic photos of the affected resource and a description of its historical significance, in a publicly accessible location on the project site. This may also include a website. The contents of the interpretive program shall be determined by the San Francisco Planning Department’s preservation staff. Development of the interpretive displays shall be overseen by a qualified professional who meets the standards for history, architectural history, or architecture (as appropriate) set forth by the Secretary of the Interior’s Professional Qualification Standards (36 Code of Federal Regulations part 61). An outline of the format and the location and content of the interpretive displays shall be reviewed and approved by the San Francisco Planning Department’s preservation staff prior to issuance of a demolition permit or site permit. The format, location, content, specifications, and maintenance of the interpretive displays must be finalized prior to issuance of any building permits for the project.</p> <p><i>M-CUL-1d: Video Recordation for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District.</i> For projects that would demolish or materially alter a historical resource or contributor to a historic district, the project sponsor shall work with the San Francisco Planning Department’s preservation staff or other qualified professionals to undertake video documentation of the affected historical resource and its setting. The documentation shall be conducted by a professional videographer, preferably one with experience recording architectural resources, prior to the commencement of any demolition or project activities at the project site. The documentation shall be narrated by a qualified professional who meets the standards for history, architectural history, or architecture (as appropriate), as set forth by the Secretary of the Interior’s Professional Qualification Standards</p>	

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>(36 Code of Federal Regulations part 61). The documentation shall include as much information as possible, using visuals in combination with narration, about the materials, construction methods, current condition, historic use, and significance and historic context of the historical resource.</p> <p>Digital copies of the video documentation shall be submitted to the San Francisco Planning Department; archival copies of the video documentation shall be submitted to repositories including, but not limited to, the San Francisco Public Library, Northwest Information Center, and California Historical Society. The video documentation shall be reviewed and approved by the San Francisco Planning Department’s preservation staff prior to issuance of a demolition, site, or building permit for the project.</p> <p><i>M-CUL-1e: Architectural Salvage for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District.</i> For projects that would demolish or materially alter a historical resource or contributor to a historic district, the project sponsor shall seek feasible means for salvaging the building’s character-defining architectural features and incorporating them into either the design of the new project proposed at the site or the interpretive program that would be developed under M-CUL-1c. The project sponsor shall work closely with the San Francisco Planning Department preservation and urban design staff to determine which elements should be salvaged. In the event that reuse of salvaged elements in either the design of a new building or in an interpretive program proves infeasible or otherwise undesirable as determined by the San Francisco Planning Department preservation staff, the project sponsor may, at the direction of the San Francisco Planning Department preservation staff, be required to attempt to donate the elements to an appropriate historical or arts organization. A detailed salvage plan shall be reviewed and approved by the San Francisco Planning Department’s preservation staff prior to the issuance of any demolition, site, or construction permit for the project.</p> <p><i>M-CUL-1f: New Locations for Contributing Auxiliary Water Supply System Elements to Preserve Historic District Character.</i> Where a streetscape or street network improvement proposed under the Hub Plan would require moving an Auxiliary Water Supply System hydrant, the San Francisco Planning Department shall conduct additional study to determine if it contributes to the historic significance of the Auxiliary Water Supply System. If the element is determined to be a contributing feature of the Auxiliary Water Supply System, the project sponsor shall work with the San Francisco Planning Department’s preservation staff to determine a location where the contributing Auxiliary Water Supply System hydrant could be reinstalled to preserve the historic relationships and functionality that are character-defining features of the Auxiliary Water Supply System. Generally, hydrants shall be reinstalled near the corner or the intersection from where they were removed. Any hydrant found not to contribute to the significance of the Auxiliary Water</p>	

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		Supply System could be removed or relocated without diminishing the historic integrity of the district. Furthermore, the project would require the San Francisco Planning Department to coordinate with San Francisco Public Works and adopt San Francisco Public Works Auxiliary Water Supply System contract specifications related to the protection of existing water and Auxiliary Water Supply System facilities during implementation of streetscape and street network improvements under the Hub Plan.	
Impact CUL-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a substantial adverse change to individual built environment resources and/or historic districts, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code.	LTS	None required.	NA
Impact CUL-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of an individual built environment resource and/or historic district, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code, from ground-borne vibration caused by temporary construction activities.	S	See <i>Impact NOI-4</i> for applicable mitigation measures.	LTS
Impact CUL-4. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could cause a substantial adverse change in the significance of an archaeological resource, as defined in section 15064.5.	S	The Hub Plan and Hub HSD <i>M-CUL-4a: Project-Specific Preliminary Archaeological Review for Projects Involving Soil Disturbance.</i> This archaeological mitigation measure shall apply to any subsequent development project involving any soil-disturbing or soil-improving activities including excavation, utilities installation, grading, soils remediation, or compaction/chemical grouting 2 feet or greater below ground surface, for which no archaeological assessment report has been prepared. Projects to which this mitigation measure applies shall be subject to Preliminary Archaeological Review by the San Francisco Planning Department archaeologist.	LTS

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>Based on the Preliminary Archaeological Review, the Environmental Review Officer shall determine if there is a potential for effects on an archaeological resource, including human remains, and, if so, what further actions are warranted to reduce the potential effect of the project on archaeological resources to a less-than-significant level. Such actions may include project redesign to avoid the potential to affect an archaeological resource, or further investigations by an archaeological consultant, such as preparation of a project-specific Archaeological Research Design and Treatment Plan or the undertaking of an archaeological monitoring or testing program based on an archaeological monitoring or testing plan. The scope of the Archaeological Research Design and Treatment Plan, archaeological testing, or archaeological monitoring plan shall be determined in consultation with the Environmental Review Officer and consistent with the standards for archaeological documentation established by the Office of Historic Preservation for the purposes of compliance with the California Environmental Quality Act (Office of Historic Preservation, Preservation Planning Bulletin No. 5). Avoidance of effects on an archaeological resources is always the preferred option.</p> <p><i>M-CUL-4b: Procedures for Accidental Discovery of Archaeological Resources for Projects Involving Soil Disturbance.</i> This mitigation measure is required for projects that would result in soil disturbance and are not subject to Mitigation Measure M-CUL-4a.</p> <p>Should any indication of an archeological resource, including human remains, be encountered during any soils-disturbing activity of the project, the project head foreman and/or project sponsor shall immediately notify the Environmental Review Officer and shall immediately suspend any soils-disturbing activities in the vicinity of the discovery until the Environmental Review Officer has determined what additional measures should be undertaken.</p> <p>If the Environmental Review Officer determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the San Francisco Planning Department archeologist. The archeological consultant shall advise the Environmental Review Officer as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the Environmental Review Officer may require, if warranted, specific additional measures to be implemented by the project sponsor.</p> <p>Measures might include preservation in situ of the archeological resource, an archeological monitoring program, an archeological testing program, or an archeological treatment program. If an archeological treatment program, archeological monitoring program or archeological testing program is required, it shall be consistent with the Planning Department’s Environmental Planning division guidelines for such programs. The Environmental Review Officer may also require that</p>	

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		<p>the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions. If human remains are found all applicable state laws will be followed as outlined in Impact CUL-7 and an archeological treatment program would be implemented in consultation with appropriate descendant groups and approved by the Environmental Review Officer.</p> <p>The project archeological consultant shall submit a Final Archeological Resources Report to the Environmental Review Officer that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.</p> <p>Copies of the Draft Final Archeological Resources Report shall be sent to the Environmental Review Officer for review and approval. Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center shall receive one copy and the Environmental Review Officer shall receive a copy of the transmittal of the Final Archeological Resources Report to the Northwest Information Center. The Environmental Planning Division of the San Francisco Planning Department shall receive one bound copy, one unbound copy, and one unlocked, searchable PDF copy on a CD of the Final Archeological Resources Report along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the Environmental Review Officer may require a different final report content, format, and distribution from that presented above.</p> <p><i>M-CUL-4c: Requirement for Archaeological Monitoring for Streetscape and Street Network Improvements.</i></p> <p>Based on the reasonable potential that archaeological resources may be present within the Hub Plan area in instances where streetscape and street network improvements are proposed that include soil disturbance of 2 feet or greater below street grade, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources and on human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List maintained by the San Francisco Planning Department archaeologist. After the first project approval action or as directed by the Environmental Review Officer, the project sponsor shall contact the San Francisco Planning Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the Qualified Archaeological Consultants List. The archaeological consultant shall undertake an archaeological monitoring program. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer. Archaeological monitoring and/or data recovery programs required by this measure could</p>	

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>suspend construction of the project for up to a maximum of four weeks. At the direction of the Environmental Review Officer, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in California Environmental Quality Act Guidelines sections 15064.5(a) and (c).</p> <p><i>Consultation with Descendant Communities:</i> On discovery of an archaeological site³ associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative⁴ of the descendant group and the Environmental Review Officer shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archaeological field investigations of the site and to offer recommendations to the Environmental Review Officer regarding appropriate archaeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archaeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.</p> <p><i>Archaeological Monitoring Program.</i> The archaeological monitoring program shall minimally include the following provisions:</p> <ul style="list-style-type: none"> • The archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological monitoring program reasonably prior to commencement of any project-related soil-disturbing activities. The Environmental Review Officer in consultation with the project archaeologist shall determine which project activities shall be archaeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the potential risk these activities pose to archaeological resources and to their depositional context. • The archaeological consultant shall undertake a worker training program for soil-disturbing workers that shall include an overview of expected resource(s), how to identify the evidence of the expected resource(s), and the appropriate protocol in the event of apparent discovery of an archaeological 	

³ The term “archaeological site” is intended here to minimally include any archaeological deposit, feature, burial, or evidence of burial.

⁴ An “appropriate representative” of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and, in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the San Francisco Planning Department archaeologist.

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>resource.</p> <ul style="list-style-type: none"> • The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the Environmental Review Officer until the Environmental Review Officer has, in consultation with the archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits. • The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis. • If an intact archaeological deposit is encountered, all soil-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction crews and heavy equipment until the deposit is evaluated. In the case of pile driving or deep foundation activities (foundation, shoring, etc.), if the archaeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archaeological resource, the pile driving or deep foundation activities shall be terminated until an appropriate evaluation of the resource has been made in consultation with the Environmental Review Officer. The archaeological consultant shall immediately notify the Environmental Review Officer of the encountered archaeological deposit. The archaeological consultant shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to the Environmental Review Officer. <p>If the Environmental Review Officer in consultation with the archaeological consultant determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:</p> <ul style="list-style-type: none"> • The proposed project shall be redesigned to avoid any adverse effect on the significant archaeological resource; or • An archaeological data recovery program shall be implemented, unless the Environmental Review Officer determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible. <p>If an archaeological data recovery program is required by the Environmental Review Officer, the archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan. The project archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological data recovery plan. The archaeological consultant shall prepare a draft archaeological data recovery plan that shall be submitted to the Environmental Review Officer for review and approval. The archaeological data recovery plan shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the archaeological data</p>	

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		<p>recovery plan shall identify which scientific/historical research questions are applicable to the expected resource, which data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.</p> <p>The scope of the archaeological data recovery plan shall include the following elements:</p> <ul style="list-style-type: none"> • <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations. • <i>Cataloging and Laboratory Analysis.</i> Descriptions of selected cataloging system and artifact analysis procedures. • <i>Discard and Deaccession Policy.</i> Descriptions of and rationale for field and post-field discard and deaccession policies. • <i>Interpretive Program.</i> Consideration of an onsite/offsite public interpretive program during the course of the archaeological data recovery program. • <i>Security Measures.</i> Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities. • <i>Final Report.</i> Descriptions of proposed report format and distribution of results. • <i>Curation.</i> Descriptions of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities. <p><i>Human Remains, Associated or Unassociated Funerary Objects.</i> The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the Coroner of the City and County of San Francisco and, in the event of the coroner’s determination that the human remains are Native American remains, notification of the California Native American Heritage Commission, who shall appoint a most likely descendant (Public Resources Code section 5097.98). The Environmental Review Officer shall also be immediately notified upon discovery of human remains.</p> <p>The archeological consultant, project sponsor, Environmental Review Officer, and Most Likely Descendent make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (California Environmental Quality Act Guidelines section 15064.5(d)) within six days of the discovery of the human remains. This proposed timing shall not preclude the Public Resources Code 5097.98 requirement that descendants make recommendations or preferences for treatment within 48</p>	

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		<p>hours of being granted access to the site. The agreement shall take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the Environmental Review Officer to accept recommendations of a most likely descendant. The archaeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such an agreement has been made or, otherwise, as determined by the archaeological consultant and the Environmental Review Officer. If no agreement is reached, state regulations shall be followed including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).</p> <p><i>Final Archaeological Resources Report.</i> The archaeological consultant shall submit a Draft Final Archaeological Resources Report to the Environmental Review Officer that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. The Draft Final Archaeological Resources Report shall include a curation and deaccession plan for all recovered cultural materials. The Draft Final Archaeological Resources Report shall also include an Interpretation Plan for public interpretation of all significant archaeological features.</p> <p>Copies of the Draft Final Archaeological Resources Report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, the consultant shall also prepare a public distribution version of the Final Archaeological Resources Report. Copies of the Final Archaeological Resources Report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy and the Environmental Review Officer shall receive a copy of the transmittal of the Final Archaeological Resources Report to the Northwest Information Center. The Environmental Planning division of the San Francisco Planning Department shall receive one bound and one unlocked, searchable portable document format copy on compact disc of the Final Archaeological Resources Report along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the Environmental Review Officer may require a different or additional final report content, format, and distribution than that presented above.</p>	

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		<p>30 Van Ness Avenue and 98 Franklin Street Projects</p> <p><i>M-CUL-4d: Requirements for Archaeological Testing Consisting of Consultation with Descendant Communities, Testing, Monitoring, and a Report.</i> Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources and on human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List maintained by the San Francisco Planning Department archaeologist. After the first project approval action or as directed by the Environmental Review Officer, the project sponsor shall contact the San Francisco Planning Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the Qualified Archaeological Consultants List. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant’s work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the Environmental Review Officer, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in California Environmental Quality Act Guidelines sections 15064.5 (a) and (c).</p> <p><i>Consultation with Descendant Communities:</i> On discovery of an archaeological site associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative of the descendant group and the Environmental Review Officer shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archaeological field investigations of the site and to offer recommendations to the Environmental Review Officer regarding appropriate archaeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archaeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.</p> <p><i>Archaeological Testing Program.</i> The archaeological consultant shall prepare and submit to the Environmental Review Officer for review and approval an archaeological testing plan. The archaeological testing program shall be conducted in accordance with the approved</p>	

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		<p>archaeological testing plan. The archaeological testing plan shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and evaluate whether any archaeological resource encountered on the site constitutes a historical resource under the California Environmental Quality Act.</p> <p>At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the Environmental Review Officer. If, based on the archaeological testing program, the archaeological consultant finds that significant archaeological resources may be present, the Environmental Review Officer in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological monitoring, and/or an archaeological data recovery program. No archaeological data recovery shall be undertaken without the prior approval of the Environmental Review Officer or the San Francisco Planning Department archaeologist. If the Environmental Review Officer determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:</p> <ul style="list-style-type: none"> • The proposed project shall be redesigned to avoid any adverse effect on the significant archaeological resource; or • A data recovery program shall be implemented, unless the Environmental Review Officer determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible. <p><i>Archaeological Monitoring Program.</i> If the Environmental Review Officer in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented, the archaeological monitoring program shall minimally include the following provisions:</p> <ul style="list-style-type: none"> • The archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological monitoring program reasonably prior to commencement of any project-related soil-disturbing activities. The Environmental Review Officer in consultation with the archaeological consultant shall determine which project activities shall be archaeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context. • The archaeological consultant shall undertake a worker training program for soil-disturbing workers that shall include an overview of expected resource(s), how to identify the evidence of the expected 	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>resource(s), and the appropriate protocol in the event of apparent discovery of an archaeological resource.</p> <ul style="list-style-type: none"> • The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the Environmental Review Officer until the Environmental Review Officer has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits. • The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis. • If an intact archaeological deposit is encountered, all soil-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. In the case of pile driving or deep foundation activities (foundation, shoring, etc.), if the archaeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archaeological resource, the pile driving or deep foundation activities shall be terminated until an appropriate evaluation of the resource has been made in consultation with the Environmental Review Officer. The archaeological consultant shall immediately notify the Environmental Review Officer of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the Environmental Review Officer. <p>Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the Environmental Review Officer.</p> <p><i>Archaeological Data Recovery Program.</i> The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan. The archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological data recovery plan prior to preparation of a draft archaeological data recovery plan. The archaeological consultant shall submit a draft archaeological data recovery plan to the Environmental Review Officer. The archaeological data recovery plan shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the archaeological data recovery plan shall identify which scientific/historical research questions are applicable to the expected resource, which data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data</p>	

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.</p> <p>The scope of the archaeological data recovery plan shall include the following elements:</p> <ul style="list-style-type: none"> • <i>Field Methods and Procedures.</i> Descriptions of proposed field strategies, procedures, and operations. • <i>Cataloguing and Laboratory Analysis.</i> Descriptions of selected cataloguing system and artifact analysis procedures. • <i>Discard and Deaccession Policy.</i> Descriptions of and rationale for field and post-field discard and deaccession policies. • <i>Interpretive Program.</i> Consideration of an onsite/offsite public interpretive program during the course of the archaeological data recovery program. • <i>Security Measures.</i> Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities. • <i>Final Report.</i> Descriptions of proposed report format and distribution of results. • <i>Curation.</i> Descriptions of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities. <p><i>Human Remains, Associated or Unassociated Funerary Objects.</i> The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the Office of the Chief Medical Examiner of the City and County of San Francisco and, in the event of the medical examiner’s determination that the human remains are Native American remains, notification of the California Native American Heritage Commission, who shall appoint a most likely descendant (Public Resources Code section 5097.98). The Environmental Review Officer shall also be immediately notified upon discovery of human remains.</p> <p>The archeological consultant, project sponsor, Environmental Review Officer, and Most Likely Descendent make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (California Environmental Quality Act Guidelines section 15064.5(d)) within six days of the discovery of the human remains. This proposed timing shall not preclude the Public Resources Code 5097.98 requirement that descendants make recommendations or preferences for treatment within 48 hours of being granted access to the site. The agreement shall take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the Environmental Review Officer to accept recommendations of a most likely descendant. The archaeological consultant shall retain</p>	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archaeological consultant and the Environmental Review Officer. If no agreement is reached, state regulations shall be followed including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).</p> <p><i>Final Archaeological Resources Report.</i> The archaeological consultant shall submit a Draft Final Archaeological Resources Report to the Environmental Review Officer that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. The Draft Final Archaeological Resources Report shall include a curation and deaccession plan for all recovered cultural materials. The Draft Final Archaeological Resources Report shall also include an Interpretation Plan for public interpretation of all significant archaeological features.</p> <p>Copies of the Draft Final Archaeological Resources Report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, the consultant shall also prepare a public distribution version of the Final Archaeological Resources Report. Copies of the Final Archaeological Resources Report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy and the Environmental Review Officer shall receive a copy of the transmittal of the Final Archaeological Resources Report to the Northwest Information Center. The Environmental Planning division of the San Francisco Planning Department shall receive one bound and one unlocked, searchable portable document format copy on compact disc of the Final Archaeological Resources Report along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the Environmental Review Officer may require a different or additional final report content, format, and distribution than that presented above.</p>	
<p>Impact CUL-5. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could disturb human remains, including those interred outside of formal cemeteries.</p>	<p>S</p>	<p>Implement <i>Mitigation Measures M-CUL-4a, Project-Specific Preliminary Archaeological Review for Projects Involving Soil Disturbance; M-CUL-4b, Procedures for Accidental Discovery of Archaeological Resources for Projects Involving Soil Disturbance; M-CUL-4c, Requirement for Archaeological Monitoring for Streetscape and Street Network Improvements; M-CUL-4d, Requirements for Archaeological Testing Consisting of Consultation with Descendent Communities, Testing, Monitoring, and a Report.</i></p>	<p>LTS</p>

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-CUL-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built environment resources.	S	Implement <i>Mitigation Measures M-CUL-1a, Avoid or Minimize Effects on Identified Built Environment Resources; M-CUL-1b, Prepare and Submit Historical Documentation of Built Environment Resources; M-CUL-1c, Develop and Implement an Interpretive Program for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; M-CUL-1d, Video Recordation for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; M-CUL-1e, Architectural Salvage for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; M-CUL-1f, New Locations for Contributing Auxiliary Water Supply System Elements to Preserve Historic District Character.</i>	SUM
Impact C-CUL-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in demolition and/or alteration of built environment resources.	LTS	None required.	NA
Impact C-CUL-3. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, could result in a significant cumulative impact on archaeological resources and human remains.	S	Implementation <i>Mitigation Measures M-CUL-4a, Project-Specific Preliminary Archaeological Review for Projects Involving Soil Disturbance; M-CUL-4b, Procedures for Accidental Discovery of Archaeological Resources for Projects Involving Soil Disturbance; M-CUL-4c, Requirement for Archaeological Monitoring for Streetscape and Street Network Improvements; M-CUL-4d, Requirements for Archaeological Testing Consisting of Consultation with Descendent Communities, Testing, Monitoring, and a Report.</i>	LTS
Transportation and Circulation			
Impact TR-1. The Hub Plan would require an extended duration for the construction period and intense construction activity, the secondary effects of which could create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public	S	<i>M-TR-1: Construction Management Plan.</i> For projects within the Hub Plan area, the project sponsor shall develop and, upon review and consultation with the San Francisco Municipal Transportation Agency and San Francisco Public Works, implement a Construction Management Plan to address issues related to transportation-related circulation, access, staging, and hours of delivery. The Construction Management Plan would disseminate appropriate information to contractors and affected agencies regarding coordinating construction activities to minimize disruption and maintain circulation in the project area to the extent possible, with particular focus on ensuring connectivity for transit, people walking, and people bicycling. The Construction Management Plan would supplement and expand, rather than modify or	SUM

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
transit.		<p>supersede, any manual, regulations, or provisions set forth by San Francisco Municipal Transportation Agency, San Francisco Public Works, other City departments and agencies, the California Department of Transportation.</p> <p>If it is determined during a subsequent project-level transportation study that construction of the proposed project would overlap with adjacent project(s) so as to result in transportation-related impacts, the project sponsor or its contractor(s) shall consult with City departments such as San Francisco Municipal Transportation Agency and San Francisco Public Works and conduct interdepartmental meetings, as deemed necessary by San Francisco Municipal Transportation Agency, San Francisco Public Works, and the department, to coordinate a Construction Management Plan with adjacent project(s) to minimize the severity of any disruption to adjacent land uses and transportation facilities by overlapping construction-related transportation impacts to the extent feasible and commercially reasonable in light of noise regulations, labor and contract requirements, available daylight hours, and critical-path construction schedules. Based on review of this plan, the project may be required to consult with San Francisco Municipal Transportation Agency Muni Operations prior to construction to review potential effects on nearby transit operations.</p> <p>The Construction Management Plan shall include a range of measures for the project sponsor, with San Francisco Municipal Transportation Agency concurrence, to select and prioritize to minimize disruption to the extent feasible so that overall circulation in the project area is maintained to the extent possible. Potential measures to be included in the Construction Management Plan shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> • <i>Restricted Truck Access Hours</i> – Limit truck movements between the peak hours of 7 a.m. and 9 a.m. and between 4 p.m. and 7 p.m. to the extent feasible and commercially reasonable in light of noise regulations, labor and contract requirements, available daylight hours, and critical-path construction schedules, as well as other times, if required by San Francisco Municipal Transportation Agency, to minimize disruptions to vehicular traffic, including transit during the a.m. and p.m. peak periods. • <i>Construction Truck Routing Plans</i> – Identify optimal truck routes between regional facilities and the project site, taking into consideration truck routes of other development projects and any construction activities affecting the roadway network. • <i>Carpooling, Bicycle, Walking, and Transit Access for Construction Workers</i> – The construction contractor shall encourage carpooling, bicycling, or walking to the project site as well as transit options for construction workers. These methods could include providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee ride-matching programs from www.511.org, participating in the 	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		emergency ride-home program through the City (www.sferh.org), or providing transit information to construction workers. <ul style="list-style-type: none"> • <i>Project Construction Updates for Adjacent Businesses and Residents</i> – To minimize construction impacts on access, the project sponsor shall provide nearby residences and adjacent businesses with regularly updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), and travel-lane closures. At regular intervals, to be defined in the Construction Management Plan and, if necessary, the Coordinated Construction Management Plan, a regular email notice shall be distributed by the project sponsor to adjacent neighbors, residents, and others, as requested, providing current construction information of interest to neighbors as well as contact information for those with specific construction inquiries or concerns. 	
Impact TR-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not require an extended duration for the construction period or intense construction activity, the secondary effects of which could not create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit.	LTS	None required.	NA
Impact TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not cause substantial additional VMT or induced automobile travel.	LTS	None required.	NA
Impact TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create major driving hazards.	LTS	None required.	NA

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially delay local or regional transit or create potentially hazardous conditions for public transit providers.	LTS	None required.	NA
Impact TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people walking or otherwise interfere with accessibility for people walking to the project site or adjoining areas.	LTS	None required.	NA
Impact TR-7. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility.	LTS	None required.	NA
Impact TR-8. The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking.	S	There is no feasible mitigation available to reduce this impact.	SU

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact TR-9. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would accommodate commercial vehicle and passenger loading demand.	LTS	None required.	NA
Impact TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in a substantial vehicular parking deficit.	LTS	None required.	NA
Impact TR-11. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in inadequate emergency access.	LTS	None required.	NA
Impact C-TR-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts.	S	Implement <i>Mitigation Measure M-TR-1: Construction Management Plan.</i>	SUM
Impact C-TR-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not cause substantial additional VMT or substantially induce automobile travel.	LTS	None required.	NA

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to traffic hazards.	LTS	None required.	NA
Impact C-TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative transit impacts.	LTS	None required.	NA
Impact C-TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts on people walking.	LTS	None required.	NA
Impact C-TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative bicycle impacts.	LTS	None required.	NA

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-TR-7. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts.	S	There is no feasible mitigation available to reduce this impact.	SU
Impact C-TR-8. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not contribute considerably to significant cumulative loading impacts.	LTS	None required.	NA
Impact C-TR-9. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative vehicular parking impacts.	LTS	None required.	NA
Impact C-TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to emergency access.	LTS	None required.	NA

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Noise			
<p>Impact NOI-1. During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards.</p>	<p>S</p>	<p><i>M-NOI-1a: Construction Noise Control Plan for Projects Within 250 Feet of a Noise-Sensitive Land Use.</i> The project sponsor for each subsequent development project under the Hub Plan located within 250 feet of a noise-sensitive land use (identified on Figure 3.C-1) or proposing or required to conduct nighttime construction shall develop a noise control plan to ensure that project noise from all construction activities (including construction, demolition, and excavation, etc.) is minimized to the maximum extent feasible with a goal of construction noise not exceeding 90 dBA and 10 dBA above the ambient noise level at noise sensitive receptors. The measures specified by the project sponsor for each individual project shall be reviewed and approved by the San Francisco Planning Department prior to the issuance of building permits. Measures that may be used to restrict noise include, but are not limited to, those listed below.</p> <ul style="list-style-type: none"> • Locate construction equipment (including stationary noise sources like temporary generators) as far as feasible from adjacent or nearby noise-sensitive receptors. • Stationary noise sources (e.g., generators and compressors) located in close proximity to noise-sensitive land uses shall be muffled and enclosed within temporary enclosures and shielded by barriers (which can reduce construction noise by as much as 5 dB). • Electric motors rather than gasoline- or diesel-powered engines shall be used to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used (which can reduce noise levels from exhaust by approximately 10 dB). External jackets on the tools themselves shall also be used (which could reduce noise approximately 5 dB). • Construction contractors shall be required to use “quiet” gasoline-powered compressors or electrically powered compressors as well as electric rather than gasoline- or diesel-powered forklifts for small lifting, where feasible. • Prohibit idling of inactive construction equipment for prolonged periods (i.e., more than two minutes). • Prohibit or limit gasoline or diesel engines from having unmuffled exhaust systems. • Ensure that equipment and trucks used for project construction use the best available noise control techniques (e.g., improved mufflers, equipment redesign, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds). • Ensure that impact tools (e.g., jack hammers, pavement breakers, rock drills) used for project construction are hydraulically or electrically powered, when possible. Quieter equipment shall be used instead of impact equipment, when feasible (such as drills rather than impact equipment). • Undertake the noisiest activities during times of least disturbance to surrounding residents and 	<p>SUM</p>

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>occupants.</p> <ul style="list-style-type: none"> Limit nighttime construction to the extent feasible. If nighttime construction is determined to be necessary, a special permit shall be obtained from the Director of Public Works or the Director of Building Inspection. Nighttime construction activities shall comply with the requirements of the permit. In addition, the contractor shall employ the measures discussed above (e.g., limiting idling, locating equipment far from noise-sensitive receptors, using noise-reducing enclosures, etc.) or other feasible measures to reduce noise such that interior noise at nearby receptors is reduced to the extent practicable (below 45 A-weighted decibels, equivalent sound level, where feasible). If required by the San Francisco Planning Department, based on the degree of construction, proximity of sensitive uses, or a noise complaint, project sponsor shall monitor the noise levels during periods of noisy construction activities (demolition, excavation, etc.). A plan for noise monitoring and reporting shall be provided to the San Francisco Planning Department for review prior to the commencement of construction. <p>Prior to the issuance of the building permit, along with the submission of construction documents, the project sponsor shall submit to the San Francisco Planning Department a list of measures for responding to and tracking complaints pertaining to construction noise. These measures shall include onsite posting and a noise hotline, and may include:</p> <ul style="list-style-type: none"> A procedure and phone number for notifying the San Francisco Planning Department, the health department, or the police department of complaints (during regular construction hours and off hours). A sign posted onsite describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction. Designation of an onsite construction complaint and enforcement manager for the project. <p><i>M-NOI-1b: Site-Specific Noise Control Measures for Projects Involving Pile Driving.</i> For subsequent development projects under the Hub Plan that require pile driving, a set of site-specific noise attenuation measures shall be prepared under the supervision of a qualified acoustical consultant and reviewed and approved by the San Francisco Planning Department prior to the commencement of any pile driving activity. These attenuation measures shall be included in the construction of the project and include as many of the following control strategies, and any other effective strategies, as feasible to reduce noise from pile driving at nearby noise-sensitive land uses:</p> <ul style="list-style-type: none"> Require the construction contractor to erect temporary plywood or similar solid noise barriers along the boundaries of the project site to shield sensitive receptors and reduce noise levels; Require the construction contractor to implement “quiet” pile-driving technology (such as pre-drilling of piles, sonic pile drivers, and the use of more than one pile driver to shorten the total 	

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Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>pile driving duration), where feasible, with consideration of geotechnical and structural requirements and soil conditions.</p> <ul style="list-style-type: none"> Require the construction contractor to monitor the effectiveness of noise attenuation measures by taking noise measurements, at a distance of 100 feet, at least once per day during pile-driving; and Require that the construction contractor limit pile driving activity to result in the least disturbance to neighboring uses. 	
<p>Impact NOI-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards.</p>	<p>S</p>	<p>Implement <i>Mitigation Measure M-NOI-1a: Construction Noise Control Plan for Projects Within 250 Feet of a Noise-Sensitive Land Use.</i></p>	<p>LTS</p>
<p>Impact NOI-3. Construction of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would generate excessive ground-borne vibration or ground-borne noise levels.</p>	<p>S</p>	<p><i>M-NOI-3a: Protect Adjacent Potentially Susceptible Structures from Construction-Generated Vibration.</i> The project sponsor for each subsequent development project in the Hub Plan area shall consult with the San Francisco Planning Department’s environmental planning and preservation staff (as applicable) to determine whether adjacent or nearby buildings constitute structures that could be adversely affected by construction-generated vibration. For purposes of this measure, nearby potentially susceptible buildings within 100 feet of a construction site for a subsequent development project shall be considered if pile driving would be required at that site; if no pile driving would occur, potentially susceptible buildings within 25 feet of vibration-generating construction activity, such as the use of excavators, drill rigs, bulldozers, and vibratory rollers, shall be considered.</p> <p>If buildings adjacent to construction activity are identified that could be adversely affected, the project sponsor shall incorporate into construction specifications for the proposed project a requirement that the construction contractor(s) use all feasible means to avoid damage to adjacent and nearby buildings. Such methods to help reduce vibration-related damage effects may include maintaining a safe distance between the construction site and the potentially affected building, to the extent possible, based on site constraints, or using construction techniques that reduce vibration, such as concrete saws instead of jackhammers or hoe-rams to open excavation trenches, non-vibratory rollers, or hand excavation to the extent feasible. For projects that would require piles, “quiet” pile-driving technologies (such as predrilling piles or using sonic pile drivers) shall be used, as feasible; appropriate excavation shoring methods shall be employed to prevent the movement of adjacent structures; and adequate security shall be ensured to minimize risks related to vandalism and fire.</p> <p><i>M-NOI-3b: Construction Monitoring Program for Structures Potentially Affected by Vibration.</i> For</p>	<p>LTS</p>

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>structures located close enough to experience vibration levels that could result in building damage, as determined by compliance with Mitigation Measure M-NOI-3a, the project sponsor shall undertake a monitoring program to minimize damage to adjacent buildings and ensure that any such damage is documented and repaired. The monitoring program, which shall apply within 100 feet of pile driving activities and within 25 feet of other vibration generating activities, shall be followed and include the following components:</p> <ul style="list-style-type: none"> • Prior to the start of any ground-disturbing activity, the project sponsor shall engage a historic architect or qualified historic preservation professional to undertake a pre-construction survey of potentially affected historic buildings identified by the San Francisco Planning Department within 100 feet of planned pile driving activity or within 25 feet of other vibration generating activity to document and photograph the existing conditions of the building(s). If nearby affected buildings are not potentially historic, a structural engineer or other professional with similar qualifications shall document and photograph the existing conditions of potentially affected buildings within 100 feet of pile driving activity or within 25 feet of other vibration generating construction activity. • Based on the construction and condition of the resource(s), the consultant shall also establish a standard maximum vibration level that shall not be exceeded at any building, based on existing conditions, character-defining features, soil conditions, and anticipated construction practices (common standards are a peak particle velocity of 0.25 inch per second for historic and some old buildings, a peak particle velocity of 0.3 inch per second for older residential structures, and a peak particle velocity of 0.5 inch per second for new residential structures and modern industrial/commercial buildings, as shown in Table 3.C-7, p. 3.C-20). • To ensure that vibration levels do not exceed the established standard, the project sponsor shall monitor vibration levels at each structure and prohibit vibratory construction activities that generate vibration levels in excess of the standard. • Should vibration levels be observed in excess of the selected standard, construction shall be halted and alternative construction techniques put in practice, to the extent feasible (e.g., pre-drilled piles could be substituted for driven piles, if feasible, based on soil conditions, or smaller, lighter equipment could be used in some cases). • The historic preservation professional (for effects to historic buildings) and/or structural engineer (for effects to non-historic structures) shall conduct regular periodic (every three months) inspections of each building during ground-disturbing activity on the project site. Should damage to any building occur, the building(s) shall be remediated to their pre-construction condition at the conclusion of ground-disturbing activity on the site. 	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>Impact NOI-4. During operation, the Hub Plan would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards.</p>	<p>S</p>	<p><i>M-NOI-4: Noise Analysis for Projects in Excess of Applicable Noise Standards.</i> To reduce potential conflicts between existing sensitive receptors and new noise-generating uses developed under the Hub Plan, a noise analysis shall be required for new development that includes noise-generating activities or equipment (e.g., outdoor gathering areas; places of entertainment; heating, ventilation, and air-conditioning equipment) with the potential to generate noise levels substantially in excess of ambient noise levels or in excess of any applicable standards. This analysis shall include, at a minimum, a site survey to identify potential noise-sensitive uses within 900 feet of and with a direct line of sight to the subsequent development project site. It shall also include at least one 24-hour noise measurement (with maximum noise level readings that permit accurate description of maximum levels reached during nighttime hours). This analysis shall be conducted prior to the first project approval action.</p> <p>The analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and shall demonstrate with reasonable certainty that the proposed use would not adversely affect nearby noise-sensitive uses, would not substantially increase ambient noise levels, and would not result in noise level in excess of any applicable standards. All recommendations from the acoustical analysis necessary to ensure that noise sources would meet applicable requirements of the noise ordinance and/or not result in substantial increases in ambient noise levels shall be incorporated into the building design and operations. Should such concerns be present, the San Francisco Planning Department may require the completion of a detailed noise control analysis (by a person qualified in acoustical analysis and/or engineering) that includes the incorporation of noise reduction measures (including quieter equipment, construction of barriers or enclosures, etc.) prior to the first project approval action.</p>	<p>LTS</p>
<p>Impact NOI-5. Operations of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.</p>	<p>LTS</p>	<p>None required.</p>	<p>NA</p>

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-NOI-1. Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	S	Implement <i>Mitigation Measures M-NOI-1a, Construction Noise Control Plan for Projects Within 250 Feet of a Noise-Sensitive Land Use, and M-NOI-1b, Site-Specific Noise Control Measures for Projects Involving Pile Driving.</i>	SUM
Impact C-NOI-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of excessive ground-borne vibration or ground-borne noise levels during construction.	LTS	None required.	NA
Impact C-NOI-3. Operation of the Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	S	Implement <i>Mitigation Measure M-NOI-4, Noise Analysis for Projects in Excess of Applicable Noise Standards.</i>	LTS

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-NOI-4. Operation of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	LTS	None required.	NA
Air Quality			
Impact AQ-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with or obstruct implementation of the 2017 Clean Air Plan.	LTS	None required.	NA
Impact AQ-2. The Hub Plan would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	LTS	None required.	NA
Impact AQ-3. The construction and operation of streetscape and street network improvements proposed as part of the Hub Plan would not result in a cumulatively considerable net increase in criteria pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	LTS	None required.	NA

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>Impact AQ-4. During construction, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.</p>	<p>S</p>	<p><i>M-AQ-4a: Construction Emissions Analysis for Projects Above Screening Levels or That Exceed Criteria Air Pollutant Significance Thresholds.</i> Subsequent development projects that do not meet the applicable screening levels in Table 3.D-6, p. 3.D-47, of this EIR or that the planning department otherwise determines could exceed one or more significance thresholds for criteria air pollutants shall undergo an analysis of the project’s construction emissions. If no significance thresholds are exceeded as shown in Table 3.D-5, no further mitigation is required. If one or more significance thresholds are exceeded, Mitigation Measure M-AQ-4b shall be implemented.</p> <p><i>M-AQ-4b: Construction Emissions Minimization Plan for Projects Above Screening Levels or That Exceed Criteria Air Pollutant Significance Thresholds or as Required in Impact AQ-7.</i> If required based on the analysis described in Mitigation Measure M-AQ-4a or as required in Impact AQ-7 the project sponsor shall submit a construction emissions minimization plan to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist.</p> <ol style="list-style-type: none"> 1. All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements: <ol style="list-style-type: none"> a) Where access to alternative sources of power is reasonably available, portable diesel engines shall be prohibited; b) All off-road equipment shall have: <ol style="list-style-type: none"> i. Engines that meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board Tier 2 off-road emission standards (or Tier 3 or Tier 4 off-road emissions standards if NO_x emissions exceed applicable thresholds), <i>and</i> ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS)⁵, and iii. Engines shall be fueled with renewable diesel (at least 99 percent renewable diesel or R99). iv. Any other best available technology offered at the time that future projects are submitted to the planning department for review may be included in the Plan as substitutions for the above items i through iii. 	<p>LTS</p>

5 Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore VDECS would not be required.

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation									
		<p>c) Exceptions:</p> <p>i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with 1(b) for onsite power generation.</p> <p>ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a particular piece of off-road equipment with an air board Level 3 VDECS (1) is technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an air board Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor shall comply with the requirements of 1(c)(iii).</p> <p>iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedule in Table M-AQ-4B.</p> <p>Table M-AQ-4b. Off-Road Equipment Compliance Step-Down Schedule*</p> <table border="1"> <thead> <tr> <th>Compliance Alternative</th> <th>Engine Emission Standard</th> <th>Emissions Control</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Tier 2**</td> <td>Air Board Level 2 VDECS</td> </tr> <tr> <td>2</td> <td>Tier 2</td> <td>Air Board Level 1 VDECS</td> </tr> </tbody> </table> <p>* How to use the table. If the requirements of 1(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met.</p> <p>** Tier 3 off road emissions standards are required if NOx emissions exceed applicable thresholds.</p> <p>iv. Exceptions to 1(b)(iii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a renewable diesel is not commercially available in the SFBAAB. If an exception is granted pursuant to this</p>	Compliance Alternative	Engine Emission Standard	Emissions Control	1	Tier 2**	Air Board Level 2 VDECS	2	Tier 2	Air Board Level 1 VDECS	
Compliance Alternative	Engine Emission Standard	Emissions Control										
1	Tier 2**	Air Board Level 2 VDECS										
2	Tier 2	Air Board Level 1 VDECS										

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>section, the project sponsor shall provide another type of alternative fuel, such as biodiesel (B20 or higher).</p> <p>v. Prior to any waiver sought by a project sponsor, the sponsor shall provide documentation demonstrating that by granting the waiver, the project would not exceed any applicable criteria air pollutant threshold.</p> <p>2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable State regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.</p> <p>3. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.</p> <p>4. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and hours of operation. For the VDECS installed: technology type, serial number, make, model, manufacturer, air board verification number level, and installation date and hour meter reading on installation date. For off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used.</p> <p>5. The construction emissions minimization plan shall be kept on-site and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the construction emissions minimization plan and a way to request a copy of the Plan. The project sponsor shall provide copies of the Plan as requested.</p> <p>6. Reporting. Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 4, above. In addition, for off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used. Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each</p>	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>phase, the report shall include detailed information required in Paragraph 4. In addition, for off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used.</p> <p>7. Certification Statement and On-site Requirements. Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.</p> <p>It should be noted that for specialty equipment types (e.g., drill rigs, shoring rigs and concrete pumps) it may not be feasible for construction contractors to modify their current, older equipment to accommodate the particulate filters, or for them to provide newer models with these filters pre-installed. Therefore, alternative compliance options are provided for in Mitigation Measure M-AQ-4b.</p>	
<p>Impact AQ-5. During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.</p>	<p>S</p>	<p><i>M-AQ-5a: Educate Residential and Commercial Tenants Concerning Low-VOC Consumer Products.</i> Prior to receipt of any building permit and every five years thereafter, the project sponsor shall develop electronic correspondence to be distributed by email or posted on-site annually to tenants of the project that encourages the purchase of consumer products and paints that are better for the environment and generate less volatile organic compound (VOC) emissions. The correspondence shall encourage environmentally preferable purchasing and shall include contact information and links to SF Approved.⁶</p> <p><i>M-AQ-5b: Reduce Operational Emissions for Projects That Exceed Criteria Air Pollutant Thresholds.</i> Proposed projects that would exceed the criteria air pollutant thresholds shall implement the additional measures, as applicable and feasible, to reduce operational criteria air pollutant emissions. Such measures may include, but are not limited to, the following:</p> <ul style="list-style-type: none"> • For any proposed refrigerated warehouses or large (greater than 20,000 square feet) grocery retailers, provide electrical hook-ups for diesel trucks with Transportation Refrigeration Units at the loading docks. • Use low- and super-compliant VOC architectural coatings in maintaining buildings. “Low-VOC” refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District Rule 1113; however, many manufacturers have reformulated to levels well below these limits. These are referred to as “Super-Compliant” architectural coatings. 	<p>SUM</p>

6 SF Approved (sfapproved.org) is administrated by the San Francisco Department of Environment staff, who identifies products and services that are safer and better for the environment (e.g., those that are listed as “Required” or “Suggested”).

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> Other measures that become available and are shown to effectively reduce criteria air pollutant emissions onsite or offsite if emissions reductions are realized within the air basin. Measures to reduce emissions onsite are preferable to offsite emissions reductions. <p><i>M-AQ-5c: Best Available Control Technology for Projects with Diesel Generators and Fire Pumps.</i> All diesel generators and fire pumps shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with a California Air Resources Board Level 3 Verified Diesel Emissions Control Strategy. All diesel generators and fire pumps shall be fueled with renewable diesel, R99, if commercially available. Additional restrictions limiting the hours per year that generators may be tested may also be required, as determined necessary by San Francisco Planning Department. Each new diesel backup generator or fire pump permit submitted for a project, including any associated generator pads, engine and filter specifications shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator or fire pump from the San Francisco Department of Building Inspection. Once operational, all diesel backup generators and Verified Diesel Emissions Control Strategy shall be maintained in good working order in for the life of the equipment and any future replacement of the diesel backup generators, fire pumps, and Level 3 Verified Diesel Emissions Control Strategy filters shall be required to be consistent with these emissions specifications. The operator of the facility at which the generator or fire pump is located shall maintain records of the testing schedule for each diesel backup generator and fire pump for the life of that diesel backup generator and fire pump and provide this information for review to the Planning Department within three months of requesting such information.</p>	
<p>Impact AQ-6. During construction or operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.</p>	<p>LTS</p>	<p>None required.</p>	<p>NA</p>

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>Impact AQ-7. The Hub Plan would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.</p>	<p>S</p>	<p>Implement <i>Mitigation Measure M-AQ-5c: Best Available Control Technology for Diesel Generators and Fire Pumps.</i></p> <p><i>M-AQ-7a: Additional Air Quality Improvement Strategies to Reduce Hub Plan-Generated Emissions and Population Exposure.</i> The planning department, in cooperation with other interested agencies or organizations, shall consider additional actions for the Hub Plan area with the goal of reducing Hub Plan-generated emissions and population exposure including, but not limited to:</p> <ul style="list-style-type: none"> • Collection of air quality monitoring data that could provide decision makers with information to identify specific areas of the Hub Plan where changes in air quality have occurred and focus air quality improvements on these areas; • Additional measures that could be incorporated into the City’s Transportation Demand Management program with the goal of further reducing vehicle trips; • Incentives for replacement or upgrade of existing emissions sources; • Other measures to reduce air pollutant exposure, such as the distribution of portable air cleaning devices; and • Public education regarding reducing air pollutant emissions and their health effects. <p>The department shall develop a strategy to explore the feasibility of additional air quality improvements within four years of Hub Plan adoption.</p> <p><i>M-AQ-7b: Air Quality Analysis That Considers the Siting of Uses That Emit Particulate Matter (PM_{2.5}), Diesel Particulate Matter, or Other Toxic Air Contaminants.</i> To minimize potential exposure of sensitive receptors to diesel particulate matter or substantial levels of toxic air contaminants as part of everyday operations from stationary or area sources (other than the sources in Mitigation Measure M-AQ-5c), the San Francisco Planning Department shall require, during the environmental review process of subsequent development projects, but not later than the first project approval action, the preparation of an analysis by a qualified air quality specialist that includes a site survey to identify residential or other sensitive receptors within 1,000 feet of the project site. For purposes of this measure, sensitive receptors are considered to include housing units; child care centers; schools (high school age and below); and inpatient health care facilities, including nursing or retirement homes and similar establishments. The assessment shall also include an estimate of emissions of toxic air contaminants from the source from the subsequent development and shall identify all feasible measures to reduce emissions. These measures shall be incorporated into the project prior to the first approval action.</p> <p><i>M-AQ-7c: Design Land Use Buffers Around Active Loading Docks.</i> For subsequent development projects that include loading docks that would be expected to accommodate more than 100 trucks per day (or 40 transportation refrigeration trucks per day), locate truck activity areas, including</p>	<p>SUM</p>

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>loading docks and delivery areas, as far away from sensitive receptors (such as residences, child care, or medical facilities) as feasible.</p> <p><i>M-AQ-7d: Implementation of Mitigation Measures M-AQ-4b and M-AQ-5c for Projects within the Existing or Future Air Pollutant Exposure Zone.</i> All construction within the existing APEZ or newly added parcels that meet the APEZ criteria (Block 3505, Lots 007 and 008; Block 3503, Lot 004; and Block 0814, Lot 003) shall implement M-AQ-4b. All subsequent development projects that include diesel generators or diesel fire pumps within the existing APEZ or newly added parcels that meet the APEZ criteria as listed above, shall implement Mitigation Measure M-AQ-5c.</p> <p><i>M-AQ-7e: Update Air Pollution Exposure Zone.</i> The Department of Public Health in coordination with the planning department is required to update the Air Pollution Exposure Zone Map in San Francisco Health Code article 38 at least every five years. The planning department shall coordinate with the Department of Public Health to update the Air Pollution Exposure Zone, taking into account updated health risk methodologies and traffic generated by the Hub Plan.</p>	
<p>Impact AQ-8. Construction and operational activities associated with the streetscape and street network improvements proposed as part of the Hub Plan would not result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.</p>	LTS	None required.	NA
<p>Impact AQ-9. During construction and operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.</p>	S	<p>Implement <i>Mitigation Measure M-AQ-5c: Best Available Control Technology for Projects with Diesel Generators and Fire Pumps.</i></p> <p><i>M-AQ-9a: Construction Emissions Minimization Plan for 30 Van Ness Avenue Project.</i> Prior to construction, the 30 Van Ness Avenue Project sponsor shall submit a construction emissions minimization plan to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. Upon approval of construction emissions minimization plan, the sponsor shall implement the plan. The plan shall detail project compliance with the following requirements:</p> <ol style="list-style-type: none"> 1. All construction equipment shall contain engine tiers consistent with the U.S. Environmental Protection Agency engine tiers as provided in Table M-AQ-9a, Construction Equipment Summary for 30 Van Ness Avenue Project, below. Documentation of equipment tiers for in-use equipment shall be maintained onsite as part of the plan. 2. All off-road engines shall be fueled with renewable diesel (at least 99 percent renewable 	LTS

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>diesel or R99), if commercially available.</p> <p>3. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.</p> <p>4. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.</p> <p>5. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and hours of operation.</p> <p>The construction emissions minimization plan shall be kept onsite and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the construction emissions minimization plan and a way to request a copy of the plan. The project sponsor shall provide copies of the plan as requested. Should any deviations from the requirements or the equipment in Table M-AQ-9a be proposed prior to or during construction, the project sponsor shall demonstrate, to the satisfaction of the ERO, that an equivalent amount of emissions reduction would be achieved.</p> <p><i>Reporting.</i> Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 5, above.</p>	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
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TABLE M-AQ-9A: CONSTRUCTION EQUIPMENT SUMMARY FOR 30 VAN NESS AVENUE PROJECT

Phase	Project Equipment at Site	Horsepower	Equipment Quantity	Usage Hours per Weekday	Usage Hours per Saturday	Controlled Equipment Details		Equipment Usage Data	
						Fuel	Control	Start	End
Demolition	Concrete/Industrial Saws	81	1	2.0	2.0	Diesel	Tier 4f	5/1/2020	11/1/2020
	Rubber Tired Dozers	247	1	1.0	1.0	Diesel	Tier 4f	5/1/2020	11/1/2020
	Sweepers/Scrubbers	64	1	2.0	2.0	Diesel	Tier 4f	5/1/2020	11/1/2020
	Excavators	158	1	2.4	2.4	Diesel	Tier 4f	5/1/2020	11/1/2020
Site Preparation	Tractors/Loaders/Blackhoes	97	1	8.0	8.0	Diesel	Tier 4f	11/2/2020	1/31/2021
	Excavators	158	3	8.0	8.0	Diesel	Tier 4f	11/2/2020	1/31/2021
	Road Cleaner/Sweepre/Scrubber	64	1	4.0	4.0	Diesel	Tier 4f	11/2/2020	1/31/2021
Grading	Rubber Tired Dozers	247	1	1.0	1.0	Diesel	Tier 4f	2/1/2021	4/30/2021
	Tractors/Loaders/Backoes	97	2	6.0	6.0	Diesel	Tier 4f	2/1/2021	4/30/2021
	Shoring Equipment (Boring Rigs)	221	2	2.4	2.4	Diesel	Tier 4f	2/1/2021	3/1/2021
	Tie Back Equipment (Drilling Rigs)	221	2	2.4	2.4	Diesel	Tier 4f	3/2/2021	3/30/2021
	Ground Improvement (Drilling Rig)	221	1	2.4	2.4	Diesel	Tier 4f	4/1/2021	4/30/2021
	Sweepers/Scrubbers	64	1	8.0	8.0	Diesel	Tier 4f	2/1/2021	4/3/2021
Building Construction	Cranes	231	1	3.0	3.0	Electric	N/A	8/1/2021	12/1/2022
	Forklifts	89	2	4.5	4.5	Propane	N/A	5/1/2021	12/31/2023
	Tractors/Loaders/Backoes	97	2	2.0	2.0	Diesel	Tier 4f	5/1/2021	12/31/2023
	Tower Crane	231	1	3.0	3.0	Electric	N/A	9/1/2021	5/1/2022
	Aerial Lifts (#1)	63	1	8.0	8.0	Electric	N/A	11/1/2021	3/1/2023
	Aerial Lifts (#2)	63	1	8.0	8.0	Electric	N/A	11/1/2021	5/1/2022
	Concrete Pumps	84	2	2.0	2.0	Electric	N/A	7/1/2021	10/1/2022
	Welders	46	6	0.80	0.80	Electric	N/A	5/1/2021	12/31/2023
Paving	Tractors/Loaders/Backhoes	97	1	5.3	5.3	Diesel	Tier 4f	11/1/2022	5/1/2023
	Concrete/Industrial Saws	81	2	2.0	2.0	Diesel	Tier 4f	11/1/2022	5/1/2023
Architectural Coating	Air Compressors	78	1	3.0	3.0	Electric	N/A	11/1/2021	1/1/2023

Notes: Project equipment was provided by the project sponsor.

Abbreviations:

N/A = not applicable

Tier 4f = Tier 4 Final

Tier 4i = Tier 4 Interim

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in Paragraph 5.</p> <p><i>Certification Statement and Onsite Requirements.</i> Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.</p> <p><i>M-AQ-9b: Best Available Control Technology for Diesel Generators for 30 Van Ness Avenue Project.</i> The two proposed diesel generators shall have engines that meet Tier 4 Final emission standards and be fueled with renewable diesel, R99, if commercially available. The project sponsor shall limit testing of the emergency diesel generators to no more than 20 hours per year. Each diesel backup generator permit shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator from the San Francisco Department of Building Inspection. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The project sponsor shall maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and provide this information for review to the planning department within three months of requesting such information.</p> <p><i>M-AQ-9c: Construction Emissions Minimization Plan for 98 Franklin Street Project.</i> Prior to construction, the 98 Franklin Street Project sponsor shall submit a construction emissions minimization plan to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. Upon approval of plan, the sponsor shall implement the plan. The plan shall detail project compliance with the following requirements:</p> <ol style="list-style-type: none"> 1. All construction equipment shall contain engine tiers consistent with the U.S. Environmental Protection Agency engine tiers as provided in Table M-AQ-9c, Construction Equipment Summary for 98 Franklin Street Project, below. Documentation of equipment tiers for in-use equipment shall be maintained onsite as part of the plan. 2. All off-road engines shall be fueled with renewable diesel (at least 99 percent renewable diesel or R99), if commercially available. 	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
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TABLE M-AQ-9C: CONSTRUCTION EQUIPMENT SUMMARY FOR 98 FRANKLIN STREET PROJECT

Phase	Project Equipment at Site	Horsepower	Equipment Quantity	Usage Hours per Weekday	Controlled Equipment Details		Equipment Usage Data	
					Fuel	Control	Start	End
Demolition	Concrete/Industrial Saws	81	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
	Excavators	67	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
	Rubber Tired Dozers	247	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
	Skid Steer Loaders	73	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
Shoring	Drill Rig	500	1	4.5	Diesel	Tier 4i	6/8/2021	8/7/2021
	Excavators	67	1	1.5	Diesel	Tier 4i	6/8/2021	8/7/2021
	Cranes	275	1	1.0	Diesel	Tier 4i	6/8/2021	8/7/2021
	Tieback rig	250	1	3.0	Diesel	Tier 4i	6/8/2021	8/7/2021
	Rough Terrain Forklift	100	1	1.0	Diesel	Tier 4i	6/8/2021	8/7/2021
	Generator	40	1	4.0	Diesel	Tier 4f	6/8/2021	8/7/2021
Excavation	Excavators	250	3	6.0	Diesel	Tier 4i	8/10/2021	10/30/2021
	Skid Steer Loaders	75	2	6.0	Diesel	Tier 4i	8/10/2021	10/30/2021
Building Construction	Cranes	231	1	3.0	Electric	N/A	11/2/2021	8/5/2023
	Forklifts	89	1	2.1	Propane	N/A	11/2/2021	8/5/2023
	Welders	46	2	0.16	Electric	N/A	11/2/2021	8/5/2023
	Sissor lifts	89	1	1.5	Electric	N/A	11/2/2021	8/5/2023
	Signal Boards	6.0	2	8.0	Electric	N/A	11/2/2021	8/5/2023
Paving	Pavers	130	1	4.0	Diesel	Tier 4i	8/1/2023	8/5/2023
	Rollers	50	1	4.0	Diesel	Tier 4i	8/1/2023	8/5/2023
Architectural Coating	Airless Paint Sprayers	78	3	4.0	Electric	N/A	1/7/2023	8/5/2023

Notes: Project equipment was provided by the project sponsor.

Abbreviations:

N/A = not applicable

Tier 4f = Tier 4 Final

Tier 4i = Tier 4 Interim

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>3. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.</p> <p>4. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.</p> <p>5. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and hours of operation.</p> <p>The construction emissions minimization plan shall be kept onsite and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the construction emissions minimization plan and a way to request a copy of the plan. The project sponsor shall provide copies of the plan as requested. Should any deviations from the requirements or the equipment in Table M-AQ-9c be proposed prior to or during construction, the project sponsor shall demonstrate, to the satisfaction of the ERO, that an equivalent amount of emissions reduction would be achieved.</p> <p><i>Reporting.</i> Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 5, above.</p> <p>Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in Paragraph 5.</p> <p><i>Certification Statement and Onsite Requirements.</i> Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.</p>	

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact AQ-10. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue or 98 Franklin Street, would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	LTS	None required.	NA
Impact C-AQ-1: The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM _{2.5}) and toxic air contaminants under 2040 cumulative conditions.	S	Implement <i>Mitigation Measures M-AQ-4b, Construction Emissions Minimization Plan for Projects Above Screening Levels or That Exceed Criteria Air Pollutant Significance Thresholds or as Required in Impact AQ-7; M-AQ-5c, Best Available Control Technology for Projects with Diesel Generators and Fire Pumps; M-AQ-7a, Additional Air Quality Improvement Strategies to Reduce Hub Plan-Generated Emissions and Population Exposure; M-AQ-7b, Air Quality Analysis That Considers the Siting of Uses That Emit Particulate Matter (PM_{2.5}), Diesel Particulate Matter, or Other Toxic Air Contaminants; M-AQ-7c, Design Land Use Buffers Around Active Loading Docks; M-AQ-7d, Implementation of Mitigation Measures M-AQ-4b and M-AQ-5c for Projects within the Existing or Future Air Pollutant Exposure Zone; and M-AQ-7e, Update Air Pollution Exposure Zone.</i>	SUM
Impact C-AQ-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM _{2.5}) and toxic air contaminants under 2040 cumulative conditions.	S	Implement <i>Mitigation Measures M-AQ-5c, Best Available Control Technology for Projects with Diesel Generators and Fire Pumps, M-AQ-9a, Construction Emissions Minimization Plan for 30 Van Ness Avenue Project, M-AQ-9b, Best Available Control Technology for Diesel Generators for 30 Van Ness Avenue Project, M-AQ-9c: Construction Emissions Minimization Plan for 98 Franklin Street Project.</i>	LTS
Wind			
Impact WI-1: The Hub Plan could create wind hazards in publicly accessible areas with substantial pedestrian use.	S	<i>M-WI-1a: Wind Analysis and Minimization Measures for Subsequent Projects.</i> All projects proposed within the Hub Plan area that would have a roof height greater than 85 feet shall be evaluated by a qualified wind expert, in consultation with the San Francisco Planning Department, to determine their potential to result in a new wind hazard exceedance or aggravate an existing pedestrian-level wind hazard exceedance (defined as the one-hour wind hazard criterion with a 26 mph equivalent wind speed). If the qualified expert determines that wind-tunnel testing is required due to the potential for a new or	LTS

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>worsened wind hazard exceedance, such testing shall be undertaken in coordination with San Francisco Planning Department staff, with results summarized in a wind report.</p> <p>The buildings tested in the wind tunnel may incorporate only those wind baffling features that can be shown on plans. Such features must be tested in the wind tunnel and discussed in the wind report in the order of preference discussed below, with the overall intent being to reduce ground-level wind speeds in areas of substantial use by people walking (e.g., sidewalks, plazas, building entries, etc.):</p> <ol style="list-style-type: none"> 1. Building Massing. New buildings and additions to existing buildings shall be shaped to minimize ground-level wind speeds. Examples of these include setbacks, stepped facades, and vertical steps in the massing to help disrupt downwashing flows. 2. Wind Baffling Measures on the Building and on the Sponsor’s Private Property. Wind baffling measures shall be included on future buildings and/or on the sponsor’s private property to disrupt vertical wind flows along tower façades and through the project site. Examples of these may include staggered balcony arrangements on main tower façades, screens and canopies attached to the buildings, rounded building corners, covered walkways, colonnades, art, landscaping, free-standing canopies, or wind screens.⁷ <p>Only after documenting all feasible attempts to reduce wind impacts via building massing and wind baffling measures on a building, shall the following be considered:</p> <ol style="list-style-type: none"> 3. Landscaping and/or Wind Baffling Measures in the Public Right-of-Way. Landscaping and/or wind baffling measures shall be installed to slow winds along sidewalks and protect places where people walking are expected to gather or linger. Landscaping and/or wind baffling measures shall be installed on the windward side of the areas of concern (i.e., the direction from which the wind is blowing).⁸ Examples of wind baffling measures may include street art to provide a sheltered area for people to walk and free-standing canopies and wind screens in areas where people walking are expected to gather or linger. If landscaping or wind baffling measures are required as one of the features to mitigate wind impacts, <i>Mitigation Measure M-WS-1b</i> (below) shall also apply. 	

⁷ Solid windscreens have a greater effect at reducing the wind speeds to immediate leeward side of the screens; however, outside of this area of influence, the winds are either unaffected or accelerated. Porous windscreens have less of an impact to the immediate leeward side; however, they have an increased area of influence and are less likely to cause any accelerations of the winds further downwind.

⁸ Landscaping typically impacts winds locally; the larger the tree crown and canopy, the greater the area of influence. Tall, slender trees with little foliage have little to no impact on local winds speeds at ground level because of the height of the foliage above ground. Shorter street trees with larger canopies help reduce winds around them but their influence on conditions farther away is limited.

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<i>M-WI-1b: Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way.</i> If it is determined that an individual subsequent development project could not reduce additional wind hazards via massing or wind baffling measures on the subject building, the project sponsors shall prepare a maintenance plan for review and approval by the San Francisco Planning Department to ensure maintenance of the features in perpetuity.	
Impact WI-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would create wind hazards in publicly accessible areas with substantial pedestrian use.	S	Implement <i>Mitigation Measure M-WI-1b: Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way.</i>	LTS
Impact C-WI-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts.	S	Implement <i>Mitigation Measures M-WI-1a, Wind Analysis and Minimization Measures for Subsequent Projects, and M-WI-1b, Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way.</i>	SUM
Shadow			
Impact SH-1. The Hub Plan would create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.	S	There is no feasible mitigation available to reduce this impact.	SU
Impact SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.	LTS	None required.	NA

TABLE S-1. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT – IDENTIFIED IN THE EIR

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-SH-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts.	S	There is no feasible mitigation available to reduce this impact.	SU
Impact C-SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in cumulatively considerable shadow impacts.	LTS	None required.	NA

Legend: NI = No Impact; LTS = Less than significant impact, no mitigation required; S = Significant; SU = Significant and unavoidable impact, no feasible mitigation; SUM = Significant and unavoidable impact after mitigation; NA = Not Applicable

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Land Use and Planning			
Impact LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not physically divide an established community.	LTS	None required.	NA
Impact LU-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	None required.	NA
Impact C-LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to cumulative land use impacts.	LTS	None required.	NA
Aesthetics			
Impact AE-1: The Hub Plan would not have a substantial adverse effect on a scenic vista.	LTS	None required.	NA
Impact AE-2: The Hub Plan would not conflict with applicable zoning and other regulations governing scenic quality or substantially damage scenic resources.	LTS	None required.	NA
Impact AE-3: The Hub Plan would not create a new source of substantial light or glare in the Hub Plan area that would adversely affect daytime or nighttime views or substantially affect people or properties.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-AE-1: The Hub Plan, along with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on aesthetics.	LTS	None required.	NA
Population and Housing			
Impact PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not induce substantial unplanned population growth beyond that projected by regional forecasts, either directly or indirectly.	LTS	None required.	NA
Impact PH-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate housing demand beyond projected housing forecasts.	LTS	None required.	NA
Impact PH-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing outside of the Hub Plan area.	LTS	None required.	NA
Impact C-PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and, cumulatively, other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on population or housing.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Cultural Resources			
See Table S-1. Summary of Impacts of the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street – Identified in the EIR			
Tribal Cultural Resources			
Impact TCR-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of a tribal cultural resource.	S	<p><i>M-TCR-1: Project-Specific Tribal Cultural Resources Assessment for Projects Involving Ground Disturbance.</i> This tribal cultural resources cultural mitigation measure shall apply to any project involving any soils-disturbing or soils-improving activities including excavation, utilities installation, grading, soils remediation, or compaction/chemical grouting at depths that would extend into sand dune and marsh deposits, which occurs at depths from 2 feet or more below the ground surface.</p> <p>Projects to which this mitigation measure applies shall be reviewed for the potential to affect a tribal cultural resource in tandem with Preliminary Archaeological Review of the project by the San Francisco Planning Department senior archaeologist. For projects requiring a Mitigated Negative Declaration or Environmental Impact Report, the San Francisco Planning Department “Notification Regarding Tribal Cultural Resources and the California Environmental Quality Act” shall be distributed to the San Francisco Planning Department tribal distribution list. Consultation with California Native American tribes regarding the potential of the project to affect a tribal cultural resource shall occur at the request of any notified tribe. For all projects subject to this mitigation measure, if the San Francisco Planning Department senior archaeologist determines that the proposed project may have a potential significant adverse effect on a tribal cultural resources, then the following shall be required as determined warranted by the Environmental Review Officer.</p> <p>If the Environmental Review Officer determines that preservation-in-place of the tribal cultural resource is both feasible and effective, based on information provided by the applicant regarding feasibility and other available information, then the project’s archaeological consultant shall prepare an archaeological resource preservation plan. Implementation of the approved archaeological resource preservation plan by the archaeological consultant shall be required when feasible. If the Environmental Review Officer determines that preservation in place of the tribal cultural resource is not a sufficient or feasible option, then the project sponsor shall implement an interpretive program of the tribal cultural resource in coordination with</p>	LTS

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		affiliated Native American tribal representatives. An interpretive plan produced in coordination with affiliated Native American tribal representatives, at minimum, and approved by the Environmental Review Officer shall be required to guide the interpretive program. The plan shall identify proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifact displays and interpretation, and educational panels or other informational displays	
Impact C-TCR-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the city, could result in a significant cumulative impact on tribal cultural resources.	S	Implement Mitigation Measure <i>M-TCR-1, Project-Specific Tribal Cultural Resources Assessment for Projects Involving Ground Disturbance.</i>	LTS
Transportation and Circulation			
See Table S-1. Summary of Impacts of the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street – Identified in the EIR			
Noise			
See Table S-1. Summary of Impacts of the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street – Identified in the EIR			
Air Quality			
See Table S-1. Summary of Impacts of the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street – Identified in the EIR			
Greenhouse Gas Emissions			
Impact C-GG-1: The Hub Plan would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-GG-2: The Hub Plan’s streetscape and street network improvements and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	LTS	None required.	NA
Wind			
See Table S-1. Summary of Impacts of the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street – Identified in the EIR			
Shadow			
See Table S-1. Summary of Impacts of the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street – Identified in the EIR			
Recreation			
Impact RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the use of existing parks and recreational facilities but would not result in substantial deterioration or physical degradation of such facilities or adverse physical environmental effects from development of new recreational facilities.	LTS	None required.	NA
Impact C-RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on recreational resources.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Utilities and Service Systems			
<p>Impact UT-1: Adequate water supplies are available to serve the Hub Plan, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and reasonably foreseeable future development in normal, dry, and multiple dry years, unless the Bay-Delta Plan Amendment is implemented; in that event, the SFPUC would develop new or expanded water supply facilities to address shortfalls in single and multiple dry years, which would occur with or without implementation of the Hub Plan. Impacts related to new or expanded water supply facilities cannot be identified at this time, and such facilities cannot be implemented in the near term. The SFPUC would address supply shortfalls through increased rationing, which could result in significant cumulative effects. However, the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not make a considerable contribution to impacts from increased rationing.</p>	LTS	None required.	NA
<p>Impact UT-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not require or result in the relocation, expansion, or construction of new wastewater treatment, stormwater, electric power, natural gas, or telecommunication facilities, or exceed capacity of the wastewater treatment provider when combined with other commitments.</p>	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact UT-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, and comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	LTS	None required.	NA
Impact C-UT-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute to cumulative impacts on utilities and services.	LTS	None required.	NA
Public Services			
Impact PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the demand for police service or fire protection service but not to such an extent that construction of new or expanded facilities would be required.	LTS	None required.	NA
Impact PS-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly generate school students and increase enrollment in public schools such that new or physically altered facilities would be required.	LTS	None required.	NA
Impact C-PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, combined with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to cumulative impacts	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>on police, fire, and school district services such that new or physically altered facilities, the construction of which could cause significant environmental impacts, would be required in order to maintain acceptable levels of service.</p>			
Biological Resources			
<p>Impact BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.</p>	<p>S</p>	<p><i>M-BI-1: California Fish and Game Code Compliance to Avoid Active Nests During Construction Activities.</i> For any project activities that result in tree removal or disturbance of existing trees through adjacent construction activities, project applicant(s) shall avoid impacts on nesting birds through compliance with relevant California Fish and Game Code by implementing one or more of the following:</p> <ul style="list-style-type: none"> • Undertaking tree removal during the non-breeding season (i.e., September through January 15) to avoid impacts on nesting birds or conducting preconstruction surveys for work scheduled during the breeding season (March through August). • Conducting, by a qualified biologist, preconstruction surveys no more than 15 days prior to the start of work during the nesting season to determine if any birds are nesting in the vegetation to be removed or in the vicinity of the construction to be undertaken. • Avoiding any nests identified by a qualified biologist and establishing a construction-free buffer zone designated by a qualified biologist, which will be maintained until nestlings have fledged. <p><i>M-BI-2: Avoid Impacts on Special-status Bat Roosts During Construction Activities:</i> Project applicant(s) shall avoid impacts on maternity colonies or hibernating bats if identified by avoiding structural demolition between April 1 and September 15 (maternity season) and between October 30 and March 1 (hibernation) to the extent feasible. Bat roost avoidance shall be accomplished by the following steps:</p> <ul style="list-style-type: none"> • The project applicant(s) shall retain a qualified biologist to conduct a bat habitat assessment of the structures proposed for demolition. The assessment may be conducted at any time of year but should be conducted during peak bat activity periods (March 1–April 15, September 1–October 15) if possible. Qualified biologists shall have 	<p>LTS</p>

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>knowledge of the natural history of the species that could occur and sufficient experience related to determining bat occupancy in buildings and bat survey techniques. The biologist shall examine both the inside and outside of accessible structures for potential roosting habitat as well as routes of entry to the structures. If the biologist concludes that the building does not provide suitable bat roosting habitat, no further actions are necessary and work may commence. If the results of the survey are inconclusive or the biologist identifies potential roost sites, the following steps shall be implemented:</p> <ul style="list-style-type: none"> • The project applicant(s) shall implement measures under the guidance of a qualified bat biologist to exclude bats from using the building as a roost site, such as sealing off entry points with one-way doors or enclosures. Installation of exclusion devices shall occur before maternity colonies establish or after they disperse, generally between March 1 and 30 or between September 15 and October 30, to preclude bats from occupying a roost site during demolition. Exclusionary devices shall be installed only by or under the supervision of an experienced bat biologist. • The qualified biologist shall conduct a follow-up survey to confirm that the exclusion measures have excluded bats. If follow-up surveys determine that bats are still present, the biologist shall modify the exclusion measures to effectively exclude bats from the structure. Following successful exclusion of the bats and confirmation of their absence by the biologist, demolition or structural modification shall commence. 	
<p>Impact BI-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.</p>	<p>LTS</p>	<p>Improvement Measure: <i>I-BI-2: Lighting Minimization during Hours of Darkness</i>. In compliance with the voluntary San Francisco Lights Out Program, the department could encourage buildings developed pursuant to the Hub Plan to implement bird-safe building operations to prevent or minimize bird-strike impacts, including, but not limited to, the following measures:</p> <ul style="list-style-type: none"> • Reduce building lighting from exterior sources by: <ul style="list-style-type: none"> ○ Minimizing the amount and visual impact of perimeter lighting and façade uplighting and avoiding up-lighting on rooftop antennae and other tall equipment as well as of any decorative features 	<p>NA</p>

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> • Installing motion-sensor lighting <ul style="list-style-type: none"> ○ Using low-wattage fixtures to achieve required lighting levels • Reduce building lighting from interior sources by: <ul style="list-style-type: none"> ○ Dimming lights in lobbies, perimeter circulation areas, and atria ○ Turning off all unnecessary lighting by 11 p.m. through sunrise, especially during peak migration periods (mid-March to early June and late August to late October) ○ Using automatic controls (motion sensors, photo-sensors, etc.) to shut off lights in the evening when no one is present • Encouraging the use of localized task lighting to reduce the need for more extensive overhead lighting <ul style="list-style-type: none"> ○ Scheduling nightly maintenance to conclude by 11 p.m. ○ Educating building users about the dangers of lighting to birds during hours of darkness 	
Impact BI-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None required.	NA
Impact C-BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on biological resources.	S	Implement Mitigation Measures <i>M-BI-1, California Fish and Game Code Compliance to Avoid Active Nests During Construction Activities, and M-BI-2, Avoid Impacts on Special-status Bat Roosts During Construction Activities.</i>	LTS
Geology and Soils			
Impact GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be subject to the effects of surface fault rupture.	NI	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact GE-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking.	LTS	None required.	NA
Impact GE-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause seismically induced ground failure, including liquefaction, earthquake-induced settlement, or landslides.	LTS	None required.	NA
Impact GE-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in substantial erosion or loss of topsoil.	LTS	None required.	NA
Impact GE-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be located on a geologic unit or soil that is unstable or that could become unstable as a result of the project.	LTS	None required.	NA
Impact GE-6: The Hub Plan, as well as or individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create substantial risks to life or property as a result of location on expansive soils.	LTS	None required.	NA
Impact GE-7: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could directly or indirectly destroy a unique paleontological resource or site or geological feature.	S	M-GE-1: Inadvertent Discovery of Paleontological Resources. Before the start of any excavation activities, subsequent development projects proposed under the Hub (including the projects proposed at 30 Van Ness Avenue and 98 Franklin Street) that have the potential to encounter the Colma Formation shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology, who is experienced in teaching non-specialists. The qualified paleontologist shall train all construction personnel who are involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, the proper notification procedures	LTS

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
		<p>should fossils be encountered, and the laws and regulations protecting paleontological resources. Depending on the location of the Colma Formation at a specific project site, the qualified paleontologist shall be contacted when earthmoving activities reach a depth of 12-27 feet to verify that workers are following the established procedures. If potential vertebrate fossils are discovered by construction crews, all earthwork or other types of ground disturbance within 25 feet of the find shall stop immediately, and the monitor shall notify the project sponsor, the qualified paleontologist, and the Environmental Review Officer.</p> <p>The fossil shall be protected by an “exclusion zone” (an area approximately 5 feet around the discovery that is marked with caution tape to prevent damage to the fossil). Work in the affected area shall not resume until a qualified professional paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue or recommend salvage and recovery of the fossil. The qualified paleontologist may also propose modifications to the stop-work radius, based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent with Society of Vertebrate Paleontology’s 2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, as well as currently accepted scientific practice, and subject to review and approval by the Environmental Review Officer. If required, treatment for fossil remains may include preparation and recovery so they can be housed in an appropriate museum or university collection (e.g., the University of California Museum of Paleontology). This may also include preparation of a report for publication describing the finds. The department shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means. The project sponsor shall be responsible for ensuring that the paleontologist’s recommendations regarding treatment and reporting are implemented, including the costs necessary to prepare and identify collected fossils and any curation fees charged for university or museum storage.</p>	

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact C-GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts related to geology, soils, and seismicity.	LTS	None required.	NA
Hydrology and Water Quality			
Impact HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and would not conflict with or obstruct implementation of a water quality control plan.	LTS	None required.	NA
Impact HY-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a sustainable groundwater management plan.	LTS	None required.	NA
Impact HY-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation onsite or offsite.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Impact HY-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in manner that would result in flooding onsite or offsite.	LTS	None required.	NA
Impact HY-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street and, would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	LTS	None required.	NA
Impact HY-6: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impede or redirect floodflows.	NI	None required.	NA
Impact C-HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on hydrology and water quality.	LTS	None required.	NA
Hazards and Hazardous Materials			
Impact HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
<p>Impact HZ-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In addition, development under the Hub Plan, as well as the individual development projects, could occur on the site(s) identified on the list of hazardous materials sites compiled pursuant to Government Code section 65962.5 but compliance with regulations would ensure that impacts remain less than significant.</p>	LTS	None required.	NA
<p>Impact HZ-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not expose workers and the public to hazardous building materials, including asbestos-containing materials, lead-based paint, polychlorinated biphenyls, bis(2-ethylhexyl) phthalate, and mercury, during demolition and building removal or result in a release of these materials into the environment during construction.</p>	LTS	None required.	NA
<p>Impact HZ-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.</p>	LTS	None required.	NA
<p>Impact HZ-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impair implementation of or physically interfere with an</p>	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
adopted emergency response plan or emergency evacuation plan.			
Impact C-HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact related to hazards and hazardous materials.	LTS	None required.	NA
Mineral Resources			
None.			
Energy			
Impact EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation; or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None required.	NA
Impact C-EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts related to the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None required.	NA

TABLE S-2. SUMMARY OF IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE PROJECT, AND 98 FRANKLIN STREET PROJECT IDENTIFIED IN THE INITIAL STUDY (SEE APPENDIX B)

Environmental Impacts	Level of Significance before Mitigation	Mitigation and Improvement Measures	Level of Significance after Mitigation
Agriculture and Forestry Resources			
Impact AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not (a) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; (b) conflict with existing zones for agricultural use or a Williamson Act contract; (c) conflict with existing zoning for, or cause rezoning of, forestland or timberland; (d) result in the loss of forestland or conservation of forestland to non-forest use; or (e) involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to non-agricultural use or forestland to non-forest use.	NI	None required.	NA
Impact C-AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in impacts on agriculture and forestry resources.	NI	None required.	NA
Wildfire			
None.			
Legend: NI = No Impact; LTS = Less than significant impact, no mitigation required; S = Significant; SU = Significant and unavoidable impact, no feasible mitigation; SUM = Significant and unavoidable impact after mitigation; NA = Not Applicable			

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Description	The Hub Plan would implement changes to current zoning controls, including changes to height and bulk districts for select sites, to allow more housing, including more affordable housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically office, institutional, art, and public uses. The Hub Plan also calls for public realm improvements to streets and alleys within and adjacent to the Hub Plan area, such as sidewalk widening, streetlight upgrades, median realignment, road and vehicular parking reconfiguration, tree planting, and the addition of bulb-outs. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a 45-story building with ground-floor retail space, 11 floors of office space, and approximately 33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the existing 100-space surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades 9–12 of FAIS).	Buildout according to current land use controls for zoning, height, and bulk specifications as specified in the Market and Octavia Area Plan.	Assumes the same policies, planning code and general plan amendments as with the Hub Plan and Hub HSD, except that this alternative would exclude implementation of the Hub Plan’s proposed streetscape and street network improvements.	Modifies the buildout assumptions at the 18 sites identified for height and bulk increases. Requires that all projects involving historic resources conform to the Secretary of the Interior’s Standards for Rehabilitation.	No change to existing conditions.	Partial retention of the existing office/retail building and construction of an approximately 11-story building with ground-floor retail space and 10 floors of office space, reaching a height of approximately 150 feet.	No change to existing conditions.	Construction of a 120-foot (10-story) building that includes 54,505 square feet of residential uses, 81,000 square feet of school uses, 23,753 square feet of parking uses, and 3,100 square feet of retail uses.
Ability to Meet Project Sponsor’s Objectives	Meets all of the sponsor’s objectives.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would achieve most but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would not meet any of the sponsor’s objectives.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would not meet any of the sponsor’s objectives.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.
Land Use and Planning								
Physical Division of Community	Impact LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not physically divide an established community.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Conflict with Land Use Plans	Impact LU-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Land Use	Impact C-LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to cumulative land use impacts.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Aesthetics								
Scenic Vista	Impact AE-1: The Hub Plan would not have a substantial adverse effect on a scenic vista.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Conflict with Zoning and Scenic Quality	Impact AE-2: The Hub Plan would not conflict with applicable zoning and other regulations governing scenic quality or substantially damage scenic resources.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Light and Glare	Impact AE-3: The Hub Plan would not create a new source of substantial light or glare in the Hub Plan area that would adversely affect daytime or nighttime views or substantially affect people or properties.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Aesthetics	Impact C-AE-1: The Hub Plan, along with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on aesthetics.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Population and Housing								
Population Growth	Impact PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not induce substantial unplanned population growth beyond that projected by regional forecasts, either directly or indirectly.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Housing Demand	Impact PH-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate housing demand beyond projected housing forecasts.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Replacement Housing	Impact PH-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing outside of the Hub Plan area.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Population and Housing	Impact C-PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and, cumulatively, other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on population or housing.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cultural Resources								
Historical Resources	Impact CUL-1: The Hub Plan could cause a substantial adverse change in the significance of individual built environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code.	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Historical Resources	Impact CUL-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a substantial adverse change to individual built environment resources and/or historic districts, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Historical Resources	Impact CUL-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of an individual built environment resource and/or historic district, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code, from ground-borne vibration caused by temporary construction activities.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Archeological Resources	Impact CUL-4. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could cause a substantial adverse change in the significance of an archaeological resource, as defined in section 15064.5.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Human Remains	Impact CUL-5. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could disturb human remains, including those interred outside of formal cemeteries.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Historical Resources	Impact C-CUL-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built environment resources.	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Cumulative Historical Resources	Impact C-CUL-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in demolition and/or alteration of built environment resources.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Archeological Resources	Impact C-CUL-3. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, could result in a significant cumulative impact on archaeological resources and human remains.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Tribal Cultural Resources								
Change in Significance	Impact TCR-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of a tribal cultural resource.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Tribal Consultation Resources	Impact C-TCR-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the city, could result in a significant cumulative impact on tribal cultural resources.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Transportation and Circulation								
Circulation Interference	Impact TR-1. The Hub Plan would require an extended duration for the construction period and intense construction activity, the secondary effects of which could create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit.	Less than the proposed Hub Plan. (SU)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Circulation Interference	Impact TR-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not require an extended duration for the construction period or intense construction activity, the secondary effects of which could not create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
VMT	Impact TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not cause substantial additional VMT or induced automobile travel.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Driving Hazards	Impact TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create major driving hazards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Transit Delay and Hazards	Impact TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially delay local or regional transit or create potentially hazardous conditions for public transit providers.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Hazardous Conditions	Impact TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people walking or otherwise interfere with accessibility for people walking to the project site or adjoining areas.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Hazardous Conditions	Impact TR-7. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Loading	Impact TR-8. The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking.	Similar to the proposed Hub Plan. (SU)	Similar to the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Loading	Impact TR-9. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would accommodate commercial vehicle and passenger loading demand.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Parking	Impact TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in a substantial vehicular parking deficit.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Emergency Access	Impact TR-11. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in inadequate emergency access.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Construction	Impact C-TR-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts.	Less than the proposed Hub Plan. (SU)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (SUM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (SUM)
Cumulative VMT	Impact C-TR-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not cause substantial additional VMT or substantially induce automobile travel.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Traffic Hazards	Impact C-TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to traffic hazards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Transit Impacts	Impact C-TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative transit impacts.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Pedestrians	Impact C-TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts on people walking.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Bicyclists	Impact C-TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative bicycle impacts.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Loading	Impact C-TR-7. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts.	Similar to the proposed Hub Plan. (SU)	Similar to the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	NA	NA	NA	NA

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Loading	Impact C-TR-8. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not contribute considerably to significant cumulative loading impacts.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Parking	Impact C-TR-9. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative vehicular parking impacts.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Emergency Access	Impact C-TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to emergency access.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Noise								
Construction Noise	Impact NOI-1. During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Construction Noise	Impact NOI-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Construction Vibration	Impact NOI-3. Construction of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would generate excessive ground-borne vibration or ground-borne noise levels.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTSM)
Operational Noise	Impact NOI-4. During operations, the Hub Plan would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Operational Noise	Impact NOI-5. Operations of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTSM)
Cumulative Construction Noise	Impact C-NOI-1. Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with other past, present, and reasonably foreseeable future projects, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (SUM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (SUM)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Construction Vibration	Impact C-NOI-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of excessive ground-borne vibration or ground-borne noise levels during construction.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTS)
Cumulative Operational Noise	Impact C-NOI-3. Operation of the Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Cumulative Operational Noise	Impact C-NOI-4. Operation of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTS)
Air Quality								
Conflict with Clean Air Plan	Impact AQ-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue or 98 Franklin Street, would not conflict with or obstruct implementation of the 2017 Clean Air Plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Similar to the proposed 98 Franklin Street Project. (LTS)	Similar to the proposed 98 Franklin Street Project. (LTS)
Criteria Air Pollutants	Impact AQ-2. The Hub Plan would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-3. The construction and operation of streetscape and street network improvements proposed as part of the Hub Plan would not result in a cumulatively considerable net increase in criteria pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (NI)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-4. During construction, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-5. During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA

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Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Criteria Air Pollutants	Impact AQ-6. During construction or operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a cumulatively considerable net increase in criteria air pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
PM_{2.5} and TACs	Impact AQ-7. The Hub Plan would result in emissions of fine particulate matter (PM _{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.	Less than the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
PM_{2.5} and TACs	Impact AQ-8. Construction and operational activities associated with the streetscape and street network improvements proposed as part of the Hub Plan would not result in emissions of fine particulate matter (PM _{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (NI)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
PM_{2.5} and TACs	Impact AQ-9. During construction and operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in emissions of fine particulate matter (PM _{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Odors	Impact AQ-10. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue or 98 Franklin Street, would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative PM_{2.5} and TACs	Impact C-AQ-1: The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM _{2.5}) and toxic air contaminants under 2040 cumulative conditions.	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Cumulative PM_{2.5} and TACs	Impact C-AQ-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM _{2.5}) and toxic air contaminants under 2040 cumulative conditions.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Greenhouse Gas Emissions								
Cumulative GHG	Impact C-GG-1: The Hub Plan would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)

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Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative GHG	Impact C-GG-2: The Hub Plan's streetscape and street network improvements and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)
Wind								
Wind in Outdoor Public Areas	Impact WSI-1: The Hub Plan could create wind hazards in publicly accessible areas with substantial pedestrian use.	Less than the proposed Hub Plan. (LTSM)	Same as the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Wind in Outdoor Public Areas	Impact WI-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create wind hazards in publicly accessible areas with substantial pedestrian use.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Wind in Outdoor Public Areas	Impact C-WI-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts.	Less than the proposed Hub Plan. (SUM)	Same as the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (SUM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (SUM)
Shadow								
Outdoor Public Areas	Impact SH-1. The Hub Plan would create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.	Similar to the proposed Hub Plan. (SU)	Same as the proposed Hub Plan. (SU)	Less than the proposed Hub Plan. (SU)	NA	NA	NA	NA
Outdoor Public Areas	Impact SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Outdoor Public Areas	Impact C-SH-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts.	Similar to the proposed Hub Plan. (SU)	Same as the proposed Hub Plan. (SU)	Less than the proposed Hub Plan. (SU)	NA	NA	NA	NA
Cumulative Outdoor Public Areas	Impact C-SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in cumulatively considerable shadow impacts.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Recreation								
Use of Facilities	Impact RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the use of existing parks and recreational facilities but would not result in substantial deterioration or physical degradation of such facilities or adverse physical environmental effects from development of new recreational facilities.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Recreation Impacts	Impact C-RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on recreational resources.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Utilities and Service Systems								
Water Supply	Impact UT-1: Adequate water supplies are available to serve the Hub Plan, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and reasonably foreseeable future development in normal, dry, and multiple dry years, unless the Bay-Delta Plan Amendment is implemented; in that event, the SFPUC would develop new or expanded water supply facilities to address shortfalls in single and multiple dry years, which would occur with or without implementation of the Hub Plan. Impacts related to new or expanded water supply facilities cannot be identified at this time, and such facilities cannot be implemented in the near term. The SFPUC would address supply shortfalls through increased rationing, which could result in significant cumulative effects. However, the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not make a considerable contribution to impacts from increased rationing.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Expansion of Utilities	Impact UT-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not require or result in the relocation, expansion, or construction of new wastewater treatment, stormwater, electric power, natural gas, or telecommunication facilities, or exceed capacity of the wastewater treatment provider when combined with other commitments.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Solid Waste	Impact UT-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, and comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Utilities	Impact C-UT-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute to cumulative impacts on utilities and services.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Public Services								
Demand for Services	Impact PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the demand for police service or fire protection service but not to such an extent that construction of new or expanded facilities would be required.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Schools	Impact PS-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly generate school students and increase enrollment in public schools such that new or physically altered facilities would be required.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Public Services	Impact C-PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, combined with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to cumulative impacts on police, fire, and school district services such that new or physically altered facilities, the construction of which could cause significant environmental impacts, would be required in order to maintain acceptable levels of service.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Biological Resources								
Sensitive Species	Impact BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Less than the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Migration	Impact BI-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Conflict with Existing Policies	Impact BI-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Biological Resources	Impact C-BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on biological resources.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Geology and Soils								
Surface Fault Rupture	Impact GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be subject to the effects of surface fault rupture.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Seismic Ground Shaking	Impact GE-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking.	Less than to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Ground Failure	Impact GE-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause seismically induced ground failure, including liquefaction, earthquake-induced settlement, or landslides.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Erosion	Impact GE-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in substantial erosion or loss of topsoil.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Geologic Unit/Unstable Soil	Impact GE-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be located on a geologic unit or soil that is unstable or that could become unstable as a result of the project.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Expansive Soils	Impact GE-6: The Hub Plan, as well as or individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create substantial risks to life or property as a result of location on expansive soils.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Paleontological Resources	Impact GE-7: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could directly or indirectly destroy a unique paleontological resource or site or geological feature.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Geology and Soils	Impact C-GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts related to geology, soils, seismicity, and paleontological resources.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE S-3. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Hydrology and Water Quality								
Water Quality Control Plan	Impact HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and would not conflict with or obstruct implementation of a water quality control plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Groundwater	Impact HY-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a sustainable groundwater management plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Drainage	Impact HY-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation onsite or offsite.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Drainage	Impact HY-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in manner that would result in flooding onsite or offsite.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Drainage	Impact HY-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street and, would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Flooding	Impact HY-6: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impede or redirect floodflows.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Hydrology	Impact C-HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on hydrology and water quality	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Hazards and Hazardous Materials								
Transit and Disposal	Impact HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Upset and Accidental Conditions	Impact HZ-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In addition, development under the Hub Plan, as well as the individual development projects, could occur on the site(s) identified on the list of hazardous materials sites compiled pursuant to Government Code section 65962.5 but compliance with regulations would ensure that impacts remain less than significant.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Building Materials	Impact HZ-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not expose workers and the public to hazardous building materials, including asbestos-containing materials, lead-based paint, polychlorinated biphenyls, bis(2-ethylhexyl) phthalate, and mercury, during demolition and building removal or result in a release of these materials into the environment during construction.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Schools	Impact HZ-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Emergency Response	Impact HZ-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Hazards	Impact C-HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact related to hazards and hazardous materials.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Energy								
Construction and Operation	Impact EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation; or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Energy	Impact C-EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts related to the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Agriculture and Forestry Resources								
Agriculture and Forestry	Impact AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not (a) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; (b) conflict with existing zones for agricultural use or a Williamson Act contract; (c) conflict with existing zoning for, or cause rezoning of, forestland or timberland; (d) result in the loss of forestland or conservation of forestland to non-forest use; or (e) involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to non-agricultural use or forestland to non-forest use.	Less than the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)
Cumulative Agriculture and Forestry	Impact C-AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in impacts on agriculture and forestry resources.	Less than the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)

Legend: NI = No Impact; LTS = Less than significant impact, no mitigation required; S = Significant; SU = Significant and unavoidable impact, no feasible mitigation; SUM = Significant and unavoidable impact after mitigation; NA = Not Applicable

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1. INTRODUCTION

This environmental impact report (EIR) evaluates potential environmental effects associated with implementation of the Hub Plan¹, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD). The Hub Plan area is approximately 84 acres and located within the Downtown/Civic Center, South of Market (SoMa), Western Addition, and Mission Neighborhoods. The Hub Plan area consists of the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD which would be designated within all or portions of the Hub Plan area.

The Hub Plan area is bounded by Haight Street from Octavia Boulevard to Gough Street, Gough Street from Haight Street to Page Street, Franklin Street from Page Street to Fell Street, Fell Street from Franklin Street to Van Ness Avenue, Van Ness Avenue from Fell Street to Hayes Street, Hayes Street from Van Ness Avenue to Larkin Street, Market Street from Ninth Street to 10th Street, midblock between 10th Street and 11th Street from Market Street to Mission Street, Mission Street from 10th Street to Washburn Street, a portion of Washburn Street, Minna Street from 10th Street to just past Lafayette Street (with certain lots excluded), midblock between Lafayette Street and 12th Street to Howard Street, Howard Street just north of 12th and 13th streets, and 13th Street to Octavia Boulevard and Haight Street, as shown in detail in **Figure 2-1**, p. 2-2, in Chapter 2, Project Description.

The Hub Plan is an amendment to the Market and Octavia Area Plan. It proposes to rezone portions of the Hub Plan area and incorporate public realm improvements (e.g., streetscape and street network improvements) to encourage housing, including affordable housing; create safer and more walkable streets as well as welcoming and active public spaces; increase transportation options by improving major streets and alleys to encourage walking, bicycling, and car-sharing; and create a neighborhood with a range of uses and services to meet neighborhood needs. The Hub Plan would pursue this vision through changes to current zoning controls applicable to the area, including changes to height and bulk districts for select sites to allow more housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically office, institutional, art, and public uses.

The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a 45-story building with ground-floor retail space, 11 floors of office space, and approximately 33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the existing 100-space surface vehicular

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades nine–12 of the French American International School).

This EIR also evaluates the designation of portions or all of the Hub Plan area as an HSD, in accordance with Assembly Bill 73 (Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11). Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City and County of San Francisco (City) to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD.

This EIR analyzes implementation of the Hub Plan programmatically within the area delineated in **Figure 2-1**, p. 2-2, in Chapter 2, Project Description. This Draft EIR also evaluates two individual development projects within the Hub Plan area (i.e., the 30 Van Ness Avenue Project and 98 Franklin Street Project) at a project-specific level. Likewise, this Draft EIR studies the proposed streetscape and street network improvements at the project level because of the sufficiency of detailed information available. Lastly, this EIR acknowledges the implications of implementation of the Hub HSD in all or portions of the Hub Plan area.

A. ENVIRONMENTAL REVIEW PROCESS

The San Francisco Planning Department (department), serving as lead agency responsible for administering the environmental review on behalf of the City, determined that preparation of an EIR was needed to evaluate potentially significant effects that could result from implementation of the Hub Plan, the two individual development projects, and the Hub HSD. The California Environmental Quality Act (CEQA) requires that before a decision can be made to approve a project (or in this case also a plan) that would result in potential adverse physical effects, an EIR must be prepared that fully describes the environmental effects of the project. An EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental impacts of a project, identify mitigation measures to lessen or eliminate significant adverse impacts, and examine feasible alternatives to the project. The information contained in this EIR will be reviewed and considered by the decision-makers prior to a decision to approve, disapprove, or modify the Hub Plan, the two individual development projects, and the Hub HSD.

CEQA requires that the lead agency neither approve nor implement a project unless its significant environmental effects have been reduced to less-than-significant levels, essentially “eliminating, avoiding, or substantially lessening” the expected impact(s), except when certain findings are made. If the lead agency approves a project that would result in the occurrence of significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must state the reasons for its action in writing, demonstrate that its action is based on the EIR or other information in the record, and adopt a Statement of Overriding Considerations. A

Statement of Overriding Considerations provides substantial evidence of the balance of the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project.

On May 23, 2018, the department sent a Notice of Preparation (NOP) to governmental agencies, organizations, and persons who may have an interest in the proposed project. The NOP requested that agencies and interested parties comment on environmental issues that should be addressed in the EIR (see Appendix A). A scoping meeting was held on June 12, 2018, to explain the environmental review process for the Hub Plan, the two individual development projects, and the Hub HSD and provide an opportunity to take public comments related to the environmental issues of the Hub Plan and the individual development projects. The department considered the public comments received at the scoping meeting and prepared an initial study in order to focus the scope of the EIR by assessing which of the proposed project's environmental topics would not result in significant impacts on the environment. The initial study is included as an appendix to this EIR (see Appendix B). The initial study determined that the Hub Plan, the two individual development projects, and the Hub HSD would not result in significant environmental effects (in some cases, with mitigation identified in the initial study) for the following environmental topics:

- Land Use/Planning;
- Aesthetics;
- Population and Housing;
- Tribal Cultural Resources;
- Greenhouse Gas Emissions;
- Recreation;
- Utilities and Service Systems;
- Public Services;
- Biological Resources (significant impact identified, but mitigated through measures identified in the initial study);
- Geology and Soils (significant impact identified, but mitigated through measures identified in the initial study);
- Hydrology and Water Quality;
- Hazardous Materials (significant impact identified, but mitigated through measures identified in the initial study);
- Mineral Resources

- Energy
- Agricultural and Forest Resources
- Wildfire.

The following is a summary of the issues raised by the public and governmental agencies in response to the NOP prepared for the Hub Plan, the two individual development projects, and the Hub HSD. The general topic categories of the comments are shown in **bolded text**, followed by clarifying remarks or general statements in parentheses as well as a reference to where the comment is addressed in this EIR and initial study:

- **Project Description** (requests the type of planning document be specified; concern about affordable housing to be provided under the Hub Plan. This is discussed in Chapter 2, Project Description).
- **Population and Housing** (requests thorough analysis of the cumulative social impact of potential housing and office developments; requests discussion of steps to mitigate impact on lower income Tenderloin and SoMa community). The focus of CEQA is on physical environmental impacts, such as the impacts of a project on air quality or water quality. In general, socioeconomic effects are beyond the scope of the CEQA environmental review process, unless a link can be established between the anticipated socioeconomic effects of a proposed action and adverse physical environmental impacts (CEQA Guidelines section 15131(a), CEQA section 21082.2). Because there is no evidence that the Hub Plan would result in social and economic effects that would indirectly result in significant effects on the physical environment, this topic is not discussed in the EIR or initial study. Changes to the physical environment as a result of the Hub Plan are addressed in the appropriate environmental topics in this EIR and the accompanying initial study.
- **Transportation and Traffic** (request to analyze project with a threshold of significance of one vehicle mile traveled per capita; consider ride-hailing services impact on loading and possible mitigation; concern about vehicular parking and request for zero private vehicular parking for all new developments in the neighborhood; concern about mass transit impacts in the area; requests a community process where affected community members can give feedback on safer and walkable streets. These items are addressed in Section 3.B, Transportation and Circulation);
- **Wind** (request to include analysis of wind impacts on people bicycling and people walking. This is addressed in Section 3.E, Wind).
- **Alternatives** (request for additional alternatives with different vehicular parking ratios and vehicular traffic routes. This is addressed in Chapter 5, Alternatives).

During the 45-day period that this Draft EIR is available for public review, written comments on the accuracy and adequacy of the environmental analysis presented herein may be submitted to the department. Comments may also be given in person during the public hearing on the Draft EIR. Responses to all substantive comments received on the Draft EIR and submitted within the specified review period will be included and responded to in the Response to Comments document. The Response to Comments document will also contain any minor staff-initiated changes to the Draft EIR. The Draft EIR and the Response to Comments constitute the Final EIR. Prior to approval of the proposed project, the Planning Commission must certify the Final EIR is adequate, accurate, and complete and adopt environmental findings and a mitigation monitoring and reporting program for mitigation measures identified in this Draft EIR or modified by the Response to Comments document.

B. PURPOSE OF THIS EIR

This EIR is intended as an informational document that in and of itself does not determine whether the Hub Plan, the two individual development projects, the Hub HSD, or any component, such as the Hub Plan's streetscape and street network improvements, will be approved. The EIR aids the planning and decision-making process by disclosing the potential for significant and adverse impacts. In conformance with CEQA, California Public Resources Code sections 21000 et seq., this EIR provides objective information for addressing the environmental consequences of the Hub Plan, the two individual development projects, and the Hub HSD and identifies the means for reducing or avoiding its significant impacts where feasible.

The CEQA Guidelines help define the role and expectations of this EIR as follows:

- **Information Document.** An EIR is an informational document that informs public agency decision-makers and the public of the significant environmental effect(s) of a project, identifies feasible ways to avoid or minimize significant effects, and describes reasonable alternatives to the project. The public agency shall consider the information in the EIR along with other information contained in the administrative record (section 15121(a)).
- **Degree of Specificity.** An EIR on a construction project necessarily will be more detailed in the specific effects of the project than will an EIR on the adoption of a local general plan or comprehensive zoning ordinance because the effects of the construction can be predicted with greater accuracy. An EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow (section 15146(b)). As noted above, this EIR is a program-level EIR, pursuant to CEQA Guidelines section 15168, for the Hub Plan. In addition, this EIR

is a project-level EIR, pursuant to CEQA Guidelines section 15161, for the two individual development projects (30 Van Ness Avenue and 98 Franklin Street) and the streetscape and street network improvements. A project-level EIR focuses on changes in the environment that would result from construction and operation of a specific development project. Lastly, this EIR evaluates implementation of the Hub HSD in all or portions of the Hub Plan area.

- **Standards for Adequacy of an EIR.** An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information that enables them to make a decision that intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good-faith effort at full disclosure (section 15151).

The CEQA Guidelines section 15382, define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance.” Therefore, in identifying the significant impacts of the proposed project, this EIR concentrates on its substantial physical effects and on mitigation measures to avoid or reduce those effects.

PROGRAM- AND PROJECT-LEVEL REVIEW OF POTENTIAL IMPACTS

As noted above, this EIR contains analysis at a program level, pursuant to CEQA Guidelines section 15168, for adoption and implementation of the Hub Plan; project-level environmental review, pursuant to CEQA Guidelines section 15161, for the two individual development projects (30 Van Ness Avenue and 98 Franklin Street) and the streetscape and street network improvements; and evaluation of the designation of portions or all of the Hub Plan area as an HSD. A program EIR is appropriate for a project that will involve a series of actions that are (1) related geographically, (2) logical parts in a chain of contemplated actions, (3) connected as part of a continuing program, and (4) carried out under the same authorizing statute or regulatory authority and have similar environmental impacts that can be mitigated in similar ways (CEQA Guidelines section 15168).

The EIR’s evaluation of the Hub Plan is programmatic. Its assessment of potential environmental impacts is based on the various Hub Plan components that are required for its implementation to facilitate its goals and objectives. CEQA Guidelines section 15168 notes that the use of a programmatic EIR “ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis; avoids duplicative reconsideration of basic policy

considerations; allows the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time, when the agency has greater flexibility to deal with basic problems or cumulative impacts; and allows for a reduction in paperwork.”

In addition to programmatic review of the Hub Plan, this Draft EIR evaluates two individual development projects within the Hub Plan area (i.e., the 30 Van Ness Avenue Project and 98 Franklin Street Project) at a project-specific level. Likewise, the Draft EIR studies the streetscape and street network improvements at the project level because of the sufficiency of detailed information available. The two individual development projects analyzed at the project level are being fully studied under CEQA, allowing for project approval following certification of the EIR. Future projects that arise from the Hub Plan, on the other hand, may be required to undergo additional CEQA analysis to disclose impacts particular to a specific project or project site that are not currently known and, thus, not able to be evaluated at this time. Lastly, this Draft EIR evaluates designation of portions or all of the Hub Plan area as an HSD, in accordance with Assembly Bill 73 (Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11). Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects that meet certain requirements within the HSD. Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Qualifying projects approved under the HSD would still be required to implement the mitigation measures identified in this EIR and comply with the adopted design review standards and all existing City laws and regulations. Projects that qualify under the provisions of the HSD would not be subject to further environmental review.

ANALYSIS ASSUMPTIONS

This EIR presents a set of reasonable assumptions (as described in Chapter 2, Project Description, and Chapter 3, Environmental Setting, Impacts, and Mitigation Measures) pertaining to the overall types and levels of activities that the City anticipates under the Hub Plan as the basis for evaluating the environmental impacts of the Hub Plan, the two individual development projects, and the Hub HSD. Within this context, components such as general plan amendments and zoning map amendments to update the Market and Octavia Area Plan, planning code amendments, and other related actions are those that may in some way result in indirect physical changes in the environment and therefore are considered in the evaluation of potential impacts. As previously mentioned, the Hub Plan is an amendment to the Market and Octavia Area Plan. For projects within the boundaries of the Hub Plan mitigation measures identified in this EIR for the Hub Plan supersede those identified in the Market and Octavia Area Plan. Projects within the Market and Octavia Plan Area boundary, but outside the Hub Plan area boundary, would continue to be subject to the mitigation measures specified in the

Market and Octavia Area Plan EIR. Pertinent goals, objectives, and policies from the Hub Plan; the two individual development projects; and the Hub HSD are identified in Chapter 2, Project Description, and considered in the impact evaluations as applicable.

In addition, the analysis in CEQA documents typically presents existing and existing-plus-project scenarios to identify impacts by comparing conditions with the proposed project to existing conditions. However, in the study area, several transportation infrastructure projects and land use development projects are under construction or were recently completed. Some are approved and funded and therefore expected to be under construction or completed by the time the proposed project (i.e., development under the Hub Plan, including the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street) is under construction. Because of these changing conditions, a modified or future baseline, different from the existing conditions, was determined to be appropriate for the analyses presented in this EIR because an analysis based on existing conditions could be misleading to decision makers and the public.

The baseline includes land use development projects that were under construction at the time when the NOP was published (May 23, 2018). Transportation infrastructure projects that were approved and funded, and therefore likely to be completed by the time the proposed project would be under construction, are also included as part of baseline condition. This future baseline year was determined to be 2020 because it aligns with the baseline analysis year of the model used for the transportation analysis. The projects included in the 2020 baseline condition will result in implementation of various transportation network changes. These include travel-lane reductions, new bicycle lanes, safety projects, streetscape projects that have been recently implemented (e.g., Upper Market Street Safety Project, Safer Market Street Project, signal timing changes on Market and Mission streets, which were completed prior to 2018), transportation projects that have been approved and funded or are under construction (e.g., Van Ness Bus Rapid Transit/Van Ness Improvement Project, Polk Street Streetscape Project), and land use development projects that will most likely be completed by the 2020 baseline year (e.g., 1546–1564 Market Street Project, 1629 Market Street Project, 1699 Market Street Project, 1500 Mission Street Project, 150 Van Ness Avenue Project, and 22–24 Franklin Street Project).

ALTERNATIVES TO THE PROJECTS

Chapter 5, Alternatives, of this EIR considers a reasonable range of alternatives that would reduce, avoid, or eliminate potential impacts of the Hub Plan, the two individual development projects, and the Hub HSD while still feasibly meeting most of the objectives of each. The three alternatives studied in this EIR for the Hub Plan and Hub HSD include the Hub Plan and Hub HSD No Project Alternative; Land Use Plan Only Alternative, which removes the streetscape and street network improvements from the project; and Hub Plan Reduced Intensity Hub Plan Alternative, which modifies sites that would be upzoned and lowers building heights on select sites. The two alternatives studied in this EIR for the 30 Van Ness Avenue Project are the 30 Van

Ness Avenue No Project Alternative and 30 Van Ness Avenue Reduced Intensity Alternative, which reduces the height and amount of development only at the 30 Van Ness Avenue project site. The two alternatives studied in this EIR for the 98 Franklin Street Project are the 98 Franklin Street No Project Alternative and the 98 Franklin Street Reduced Intensity Alternative, which also reduces the height and the amount of development only at the 98 Franklin Street project site.

ENVIRONMENTAL REVIEW OF SUBSEQUENT DEVELOPMENT PROJECTS

CEQA Guidelines section 15168(c) states that subsequent activities in the program must be examined in light of the program EIR to determine whether an additional environmental document must be prepared. Thus, this EIR assumes that subsequent development projects in the Hub Plan area (with the exception of the streetscape and street network improvements, the 30 Van Ness Avenue Project, and the 98 Franklin Street Project) could be subject to further environmental review at the time subsequent specific projects are proposed. The analysis of subsequent development projects would be based on existing conditions at the site and vicinity, at such time a project is proposed, and would take into account any updated information relevant to the environmental analysis of the subsequent development projects (e.g., changes to the environmental setting or updated growth forecasts, models, etc.). Because this EIR analyzes the two individual development projects (30 Van Ness Avenue and 98 Franklin Street) and the streetscape and street network improvements at a project-level, no further environmental review of these projects is anticipated.

Subsequent development projects that meet the requirements of the Hub HSD would not be subject to further environmental review. However, qualifying projects would still be required to implement the applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing federal, state, and City laws and regulations.

PROJECTS CONSISTENT WITH THE DEVELOPMENT DENSITY IN THE HUB PLAN

California Public Resources Code section 21083.3 and CEQA Guidelines section 15183 mandate that projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific effects that are peculiar to the project or its site. This streamlines the review of such projects and reduces the need to prepare repetitive environmental studies. Therefore, subsequent development projects in the Hub Plan area that are determined to be consistent with the development density established in the Hub Plan would be evaluated in accordance with CEQA Guidelines section 15183.

The lead agency, in most cases the department, is required to limit its evaluation of a project in accordance with section 15183. This evaluation would examine the environmental effects of the project that:

1. Are peculiar to the project or site on which the project is located;
2. Were not analyzed as significant effects in a prior EIR on the zoning action, general plan, or community plan, with which the project is consistent;
3. Are potentially significant offsite impacts and cumulative impacts that were not discussed in the prior EIR prepared for the general plan, community plan, or zoning action; or
4. Are previously identified significant effects that, as a result of substantial new information that was not known at the time the EIR was certified, are determined to be a more severe adverse impact than that discussed in the prior EIR.

Each subsequent development project consistent with the development density established in the Hub Plan would be evaluated to determine whether any of the criteria above have been met. This evaluation may include site- and project-specific studies (such as wind tunnel testing or shadow studies), which are appropriately analyzed at the time a specific project is proposed, when sufficient detail is available to enable such analysis. Section 15183(c) specifies that if an impact is not peculiar to the site or to the proposed project, then an EIR need not be prepared for that project solely on the basis of that impact. In the case that a subsequent development project in the Hub Plan area may have site-specific impacts not accounted for in this program EIR, a subsequent analysis in a mitigated negative declaration or focused EIR may be required, depending on whether that project would cause potentially significant impacts. If no such impacts are identified, the proposed project and applicable mitigation measures identified in this EIR would be exempt from further environmental review, in accordance with Public Resources Code section 21083.3 and CEQA Guidelines section 15183.

STREAMLINING FOR INFILL PROJECTS

California Public Resources Code section 21094.5 and CEQA Guidelines section 15183.3 provides a streamlined environmental review process for eligible infill projects by limiting the topics subject to review at the project level where the effects of infill development have been previously addressed in a planning-level decision² or by uniformly applicable development policies.³ CEQA does not apply to the effects of an eligible infill project under two circumstances. First, if an effect

² Planning-level decision means the enactment of an amendment of a general plan or any general plan element, community plan, specific plan, or zoning code.

³ Uniformly applicable development policies are policies or standards adopted or enacted by a city or county, or by a lead agency, to reduce one or more adverse environmental effects.

was addressed as a significant effect in a prior EIR⁴ for a planning-level decision, then that effect need not be analyzed again for an individual infill project, even when that effect was not reduced to a less-than-significant level in the prior EIR. Second, an effect need not be analyzed if it was not analyzed in a prior EIR or is more significant than previously analyzed if the lead agency makes a finding that uniformly applicable development policies or standards adopted by the lead agency or a city or county apply to the infill project and would substantially mitigate that effect. Depending on the effects addressed in the prior EIR and the availability of uniformly applicable development policies or standards that apply to the eligible infill project, the streamlined environmental review would range from exemption from environmental review to a narrowed project-specific environmental document.

Pursuant to CEQA Guidelines section 15183.3, an eligible infill project is examined in light of the prior EIR to determine whether the infill project would cause any effects that require additional review under CEQA. The evaluation of an eligible infill project must demonstrate the following:

1. The project satisfies the performance standards of Appendix M of the CEQA Guidelines,
2. The degree to which the effects of the infill project were analyzed in the prior EIR,
3. An explanation of whether the infill project will cause new specific effects⁵ not addressed in the prior EIR,
4. An explanation of whether substantial new information shows that the adverse effects of the infill project are substantially more severe than described in the prior EIR, and
5. If the infill project would cause new specific effects or more significant effects than disclosed in the prior EIR, the evaluation must indicate whether uniformly applied development standards would substantially mitigate⁶ those effects.⁷

⁴ Prior EIR means the EIR certified for a planning-level decision, as supplemented by any subsequent or supplemental EIRs, negative declarations, or addenda to those documents.

⁵ A new specific effect is an effect that was not addressed in the prior EIR and that is specific to the infill project or the infill project site. A new specific effect may result if, for example, the prior EIR stated that sufficient site-specific information was not available to analyze the significance of that effect. Substantial changes in circumstances following certification of a prior EIR may also result in a new specific effect.

⁶ More significant means an effect will be substantially more severe than described in the prior EIR. More significant effects include those that result from changes in circumstances or changes in the development assumptions underlying the prior EIR's analysis. An effect is also more significant if substantial new information shows that (1) mitigation measures that were previously rejected as infeasible are, in fact, feasible and such measures are not included in the project; (2) feasible mitigation measures considerably different than those previously analyzed could substantially reduce a significant effect described in the prior EIR but such measures are not included in the project; or (3) an applicable mitigation measure was adopted in connection with a planning level decision, but the lead agency determined that it is not feasible for the infill project to implement that measure.

⁷ Substantially mitigate means that the policy or standard will substantially lessen the effect but not necessarily below the levels of significance.

No additional environmental review is required if the infill project would not cause any new site-specific or project-specific effects, or more significant effects, or if uniformly applied development standards would substantially mitigate such effects.

To be eligible for the streamlining procedures prescribed in section 15183.3, an infill project must meet all of the following criteria:

1. The project site must be on a site in an urban area that has been previously developed or adjoins existing qualified urban uses on at least 75 percent of the site's perimeter.⁸
2. The proposed project satisfies the performance standards provided in Appendix M of the CEQA Guidelines.
3. The proposed project is consistent with the general use designation, density, building intensity, and applicable policies specified in the Sustainable Communities Strategy or an alternative planning strategy.⁹

The Hub Plan area is located within the Market-Octavia/Upper Market Priority Development Area, as specified in *Plan Bay Area*, the applicable Sustainable Communities Strategy.¹⁰

Any amendments to the Hub Plan would be evaluated consistent with CEQA Guidelines section 15152, which states that the analysis of subsequent development projects could be “tiered” from a program EIR, relying on the program EIR to the extent that it has evaluated the effects, including cumulative effects, that would result from their development.

C. ORGANIZATION OF THE DRAFT EIR

This Draft EIR has been organized as follows:

- **Summary.** This chapter summarizes the EIR by providing a concise overview of the Hub Plan, the two individual development projects, and the Hub HSD, including the project description and requisite approvals; the environmental impacts that would result;

⁸ For the purpose of this subdivision, "adjoin" means the infill project is immediately adjacent to qualified urban uses or is separated from such uses by only an improved public right-of-way. Qualified urban use means any residential, commercial, public institutional, transit or transportation passenger facility, or retail use or any combination of those uses.

⁹ Plan Bay Area is the current Sustainable Communities Strategy and Regional Transportation Plan that was adopted by the Metropolitan Transportation Commission and Association of Bay Area Governments in July 2017, in compliance with California's governing greenhouse gas reduction legislation, Senate Bill 375. Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017–2040: Final*. July 26, 2017, <http://files.mtc.ca.gov/library/pub/30060.pdf>, accessed January 3, 2019.

¹⁰ Metropolitan Transportation Commission and Association of Bay Area Governments, *Plan Bay Area 2040: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017–2040: Final*, July 26, 2017, <http://files.mtc.ca.gov/library/pub/30060.pdf>, accessed January 3, 2019.

mitigation measures identified to reduce or avoid the impacts; alternatives to the Hub Plan, the two individual development projects, and the Hub HSD; and areas of controversy and issues to be resolved.

- **Chapter 1, Introduction.** This chapter (above and the contents herein) includes a discussion of the environmental review process, the comments received on the scope of the EIR, the purpose of this EIR, the organization of the EIR, and opportunities for public participation in the environmental review process.
- **Chapter 2, Project Description.** This chapter discusses the project location, project objectives, and project components, including the physical characteristics of the Hub Plan, the two individual development projects, and the Hub HSD, such as changes to zoning and heights and the proposed streetscape and street network improvements.
- **Chapter 3, Environmental Setting, Impacts, and Mitigation Measures.**¹¹ This chapter describes the existing environmental setting and regulatory framework as well as the environmental and cumulative impacts of the Hub Plan, the two individual development projects, the streetscape and street network improvements, and the Hub HSD. Mitigation measures are identified where feasible to minimize the significant environmental effects of each project component. Each environmental topic is discussed in a separate section within this chapter.
- **Chapter 4, Other CEQA Considerations.** This chapter describes any growth inducement that would result from the Hub Plan, the two individual development projects, the streetscape and street network improvements, and the Hub HSD; recapitulates the significant environmental effects that cannot be mitigated to less-than-significant levels; identifies significant irreversible changes that would result if each of the project components is implemented; and presents areas of known controversy and issues left to be resolved.
- **Chapter 5, Alternatives.** This chapter presents alternatives to the Hub Plan, the two individual development projects, the streetscape and street network improvements, and the Hub HSD, including the Hub Plan and Hub HSD No Project Alternative, Land Use Plan Only Alternative, Hub Plan Reduced Intensity Hub Plan Alternative, 30 Van Ness Avenue No Project Alternative, 30 Van Ness Avenue Reduced Intensity Alternative, 98 Franklin Street No Project Alternative, and 98 Franklin Street Reduced Intensity Alternative.

¹¹ The environmental impacts of the topics in the Appendix G checklist are evaluated and scoped out in the initial study, which is in Appendix B.

- **Chapter 6, Report Preparers.** This chapter presents the persons involved in preparing this EIR.
- **Appendices.** Appendices include Appendix A, Notice of Preparation and Comments Received; Appendix B, Initial Study; Appendix C, Cultural Resources Supporting Information; Appendix D, Transportation Supporting Information; Appendix E, Noise Supporting Information; Appendix F, Air Quality Supporting Information; Appendix G, Wind Supporting Information; and Appendix H, Shadow Supporting Information.

D. PUBLIC PARTICIPATION

CEQA and chapter 31 of the San Francisco Administrative Code encourage public participation in the planning and environmental review processes. The City will provide opportunities for the public to present comments and concerns regarding the CEQA process for the Hub Plan, the two individual development projects, and the Hub HSD. The public is invited to provide comments and concerns regarding the accuracy of the Draft EIR and the CEQA process. The comment period and public hearing dates are indicated on the front cover of this EIR. Written comments may be submitted to the department, attention of Elizabeth White, at 1650 Mission Street, Suite 400, San Francisco, CA 94103, or emailed to CPC.HubPlanEIR@sfgov.org during the specified public review and comment period. Written and oral comments may be presented at the public hearing concerning the Hub Plan, the two individual development projects, and the Hub HSD.

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

2. PROJECT DESCRIPTION

A. OVERVIEW

The San Francisco Planning Department (department) is proposing to rezone portions of an approximately 84-acre area of San Francisco within the boundaries of the Market and Octavia Area Plan in the Downtown/Civic Center, South of Market (SoMa), Western Addition, and Mission neighborhoods¹ and incorporate public realm improvements (“the Hub Plan”). The approximately 84-acre area is referred to as “the Hub.” The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan.

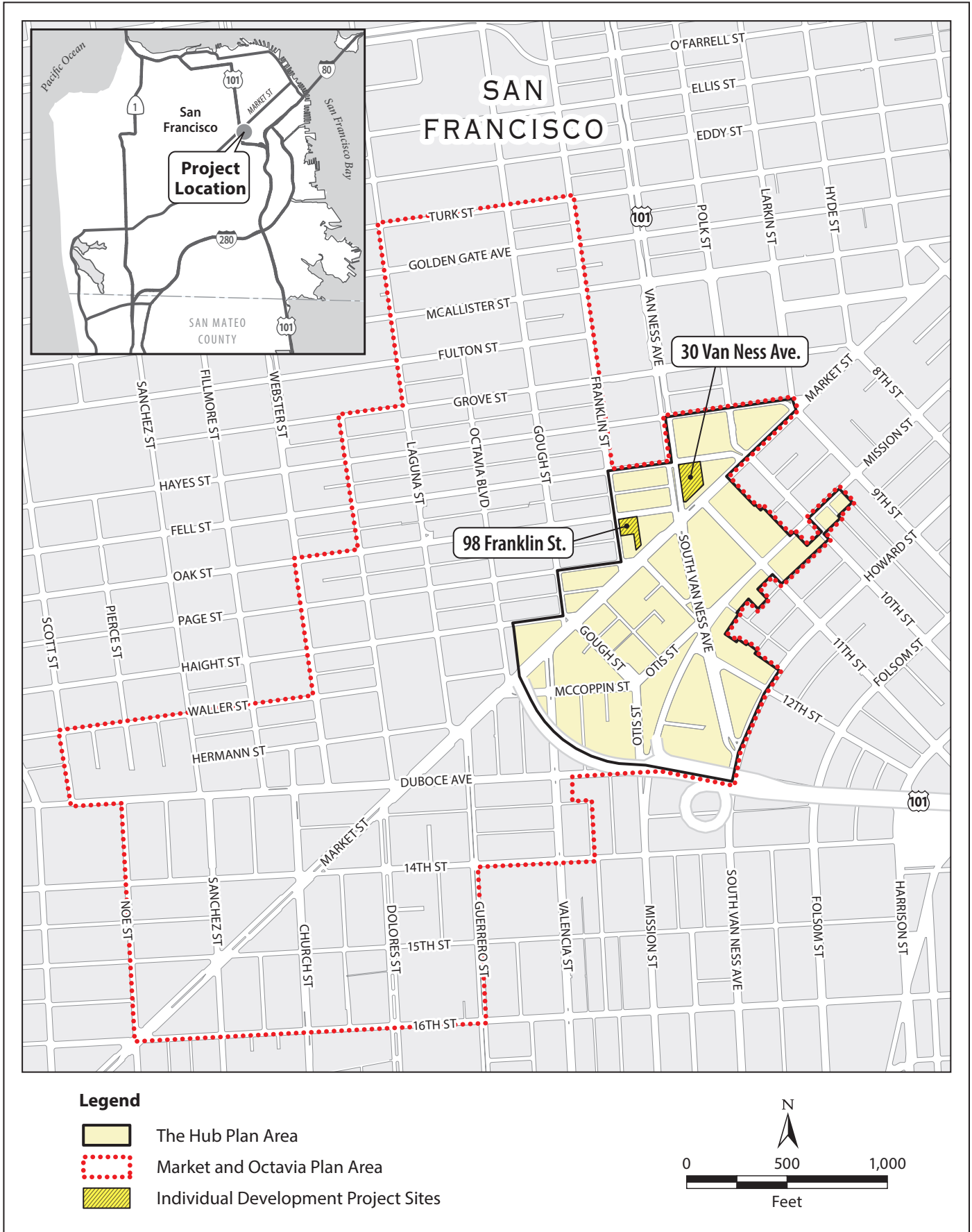
The Hub area is an irregular area bounded by Haight Street from Octavia Boulevard to Gough Street, Gough Street from Haight Street to Page Street, Franklin Street from Page Street to Fell Street, Fell Street from Franklin Street to Van Ness Avenue, Van Ness Avenue from Fell Street to Hayes Street, Hayes Street from Van Ness Avenue to Larkin Street, Market Street from Ninth Street to 10th Street, midblock between 10th Street and 11th Street from Market Street to Mission Street, Mission Street from 10th Street to Washburn Street, a portion of Washburn Street, Minna Street from 10th Street to just past Lafayette Street (with certain lots excluded), midblock between Lafayette Street and 12th Street to Howard Street, Howard Street just north of 12th and 13th streets, and 13th Street to Octavia Boulevard and Haight Street, as shown in detail in **Figure 2-1**.

In 2016, the department initiated a planning process that looked at the area and identified opportunities to increase the amount of housing, including affordable housing, and coordinate public realm improvements better. The department identified sites in the Hub area for upzoning to increase permitted heights and additional rezoning to have more consistent land use controls across the area. The department has prepared this environmental impact report (EIR) in compliance with the California Environmental Quality Act (CEQA). This EIR analyzes the environmental effects of the Hub Plan.^{2 3}

¹ San Francisco Planning Department, Neighborhood Groups Map, <http://sf-planning.org/neighborhood-groups-map>, accessed January 8, 2018. This document (and all documents cited in this EIR unless otherwise noted) is available for review on the San Francisco Property Information Map, which can be accessed at <https://sfplanninggis.org/PIM/>. Individual files can be viewed by clicking on the Planning Applications link, clicking on the “More Details” link under the project’s environmental case number (2015-000940ENV, 2017-008051ENV or 2016-014802ENV), and clicking on the “Related Documents” link.

² Several proposals in the Hub Plan have been proposed independently. These have gone through or are currently going through a separate environmental review. The EIR studies the entirety of the proposed Hub Plan. Because the proposals are contained within the Hub Plan, the physical environmental effects of the proposals are addressed in this EIR.

³ This EIR refers to the “Hub Plan,” which is the same project as the “Market and Octavia Plan Amendment.”



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**Figure 2-1
 Project Location**

The area evaluated in this EIR is considered “the Hub Plan area.” Of the sites proposed for upzoning, two individual development project sites within the Hub Plan area at 30 Van Ness Avenue and 98 Franklin Street are evaluated at a project-specific level in this EIR, meaning that no additional environmental review will be required for these projects following certification of the EIR, unless their project descriptions are revised in a way that would trigger supplemental or subsequent environmental review under CEQA. In addition, this EIR evaluates the designation of portions or all of the Hub Plan area as a Housing Sustainability District (HSD), in compliance with Assembly Bill 73 (Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11). This EIR serves as a program-level EIR for the zoning changes and, as noted above, a project-level EIR for the two development projects at 30 Van Ness Avenue and 98 Franklin Street and the streetscape and street network improvements. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a 45-story building with ground-floor retail space, 11 floors of office space, and approximately 33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the existing 100-space surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades 9–12 of the French American International School [FAIS]).

The department has also determined that preparation of an initial study is appropriate to focus the scope of this EIR. The initial study is provided as part of this EIR in Appendix B.

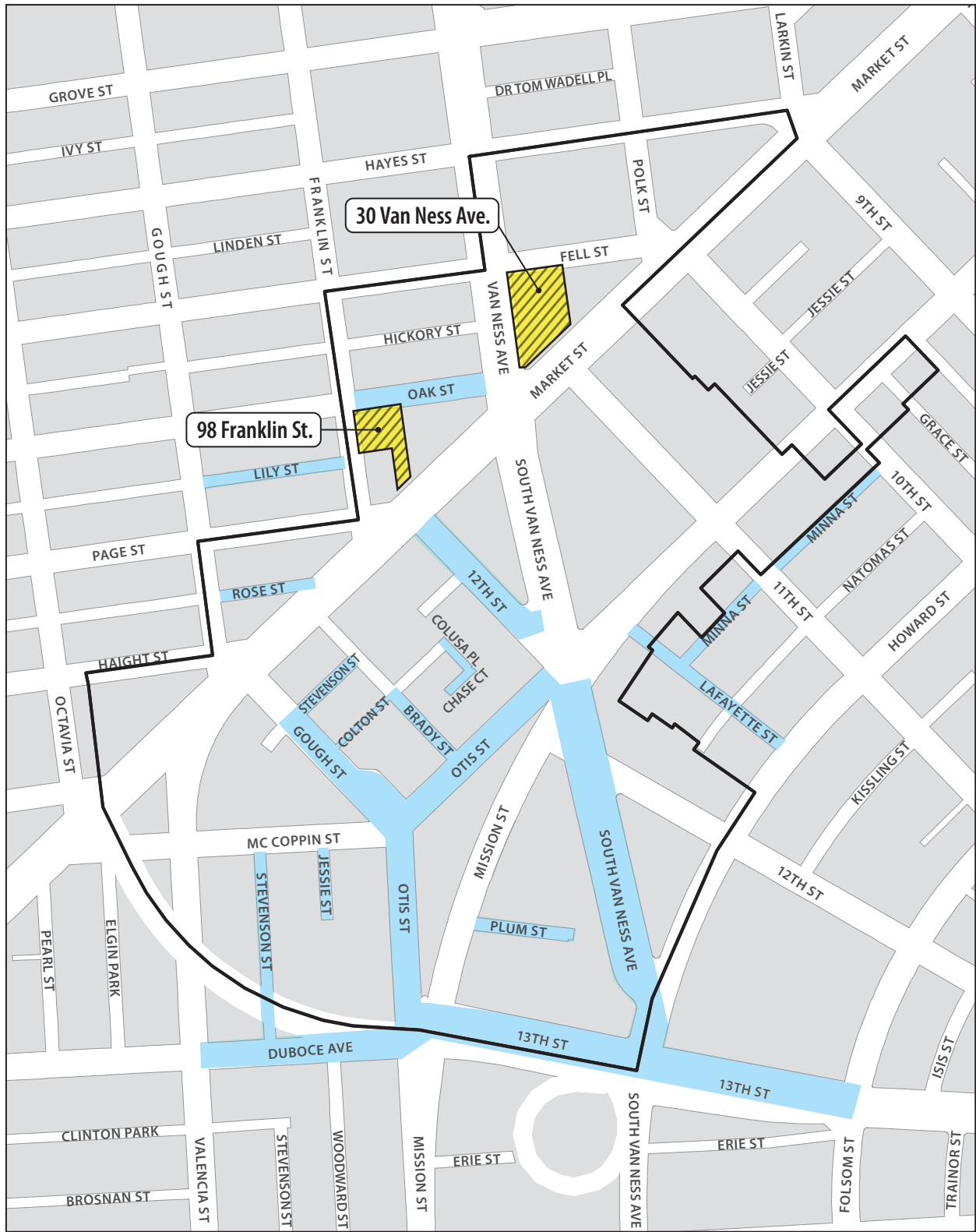
The project sponsor for the Hub Plan and the HSD is the San Francisco Planning Department. The project sponsor for the 30 Van Ness Avenue Project is 30 Van Ness Development, LLC, and the project sponsors for the 98 Franklin Street Project are the FAIS and 98 Franklin, LLC.

The boundaries of the Hub Plan area, HSD, the two individual projects studied, and the adjacent streets are shown in **Figure 2-2**. In addition to the streets in the Hub Plan area, the project includes several streets adjacent to the Hub Plan area, specifically, Lily Street between Gough Street and Franklin Street, Minna Street between 10th Street and Lafayette Street, Lafayette Street between Mission Street and Howard Street, 13th Street between Howard Street and Folsom Street, and Duboce Avenue between Valencia Street and Mission Street.




THE HUB PLAN

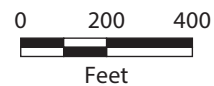
PLAN VISION

The objectives of the Hub Plan are to encourage housing, including affordable housing; create safer and more walkable streets, as well as welcoming and active public spaces; increase transportation options; and create a neighborhood with a range of uses and services to meet neighborhood needs. The Hub Plan would pursue this vision through changes to current



Legend

-  The Hub Plan Area
-  Individual Development Project Sites
-  Proposed Street Network and Alley Improvements



Source: San Francisco Planning Department, 2017.

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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
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Figure 2-2
The Hub Plan Area Boundaries, Individual Development Project Site Locations, and Proposed Street Network and Alley Improvements

zoning controls applicable to the area so as to better meet plan objectives. This would include changes to height and bulk districts for select sites to allow more housing, including more affordable housing (see **Table 2-1**, p. 2-24). Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically, office, institutional, art, and public uses. New requirements for micro retail⁴ would encourage a mix of retail sizes and uses and decrease off-street vehicular parking capacity within the Hub Plan area, a transit-rich location, by reducing the currently permitted off-street vehicular parking maximums.

The plan also calls for public realm improvements to streets and sidewalks within and adjacent to the Hub Plan area, such as sidewalk widening, streetlight upgrades, median realignment, road and vehicular parking reconfiguration, tree planting, elimination of one segment of a travel lane, and the addition of bulb-outs.

BACKGROUND

From the 1880s through the 1950s, the area of San Francisco near the intersections of Market Street and Valencia, Haight, and Gough streets was a well-known and distinct neighborhood, called the “Market Street Hub,” or simply “The Hub.” The name was derived from the convergence of streetcar lines that carried people from outlying neighborhoods to downtown San Francisco. The area’s distinctive block pattern, created by the meeting of the Mission, SoMa, and North of Market street grids, lends additional meaning to this historic name.

In the early 2000s, the Hub neighborhood was included within the boundaries of the Market and Octavia Area Plan,⁵ adopted in 2008. In the Market and Octavia Area Plan, portions of the Hub that lie south of Market Street are characterized as “SoMa West” and envisioned as a “vibrant new mixed-use neighborhood.” Numerous policies in the Market and Octavia Area Plan support this vision. The Market and Octavia Area Plan also created the Van Ness and Market Downtown Residential Special Use District (SUD). This SUD encourages the development of a transit-oriented, high-density, mixed-use residential neighborhood around the intersections of Market Street and Van Ness Avenue and Mission Street and Van Ness Avenue, with towers ranging from 250 to 400 feet in height and reduced vehicular parking.

Most of the planned housing in the 2008 Market and Octavia Area Plan for the Hub Plan area would have come from the development of relatively large sites. However, that vision has not yet materialized. These larger projects take longer to develop and, because of the 2007–2008 mortgage crisis and the Great Recession of 2007–2009, they generally did not receive much attention from developers following adoption of the Market and Octavia Area Plan. However, this area has received more attention from the development community in the strong economic cycle beginning in 2011 and continuing through the drafting of this document.

⁴ A micro retail unit is defined as retail space of 1,000 square feet or less.

⁵ San Francisco Planning Department, Market and Octavia Area Plan, May 30, 2008, http://default.sfplanning.org/Citywide/Market_Octavia/Market_and_Octavia_Area_Plan_2010.pdf, accessed January 3, 2018.

The Hub Plan area is also in the midst of major infrastructure improvements, such as the Van Ness Avenue Bus Rapid Transit (BRT),⁶ that were identified in the Market and Octavia Area Plan and have since moved into construction. In light of these recent changes, the department has proposed to study the Hub portion of the Market and Octavia Area Plan on a programmatic level and consider plan amendments. The amendments, if adopted, would be codified within the Market and Octavia Area Plan.

The city's growth needs were identified through Plan Bay Area, the Bay Area's Sustainable Communities Strategy, developed jointly by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC).⁷ Plan Bay Area focuses on ensuring an efficient transportation network, providing more housing choices, and promoting growth in a financially and environmentally responsible way, with the specific goal of reducing greenhouse gas (GHG) emissions. Plan Bay Area is a roadmap for meeting 80 percent of the region's future housing needs in areas identified by local governments as Priority Development Areas. Plan Bay Area estimates that approximately 92,000 additional housing units and 191,000 additional jobs will exist in San Francisco by 2040, which equates to roughly 15 percent of the total growth anticipated in the region. The projected additional housing represents a 25 percent increase in the city's housing inventory; the projected additional jobs represents a 34 percent increase in city employment levels over the 2012 baseline year. San Francisco has identified 12 Priority Development Areas that are expected to accommodate a substantial portion of this growth. Growth in these transit-rich and walkable Priority Development Areas is expected to reduce per capita GHG emissions.⁸ The Hub Plan, which is within the Market-Octavia/Upper Market Priority Development Area, seeks to promote the construction of new housing, consistent with the goals of Plan Bay Area.

In March 2017, the department published the draft Market Street Hub Area Public Realm Plan (draft public realm plan).⁹ The draft public realm plan recommended improvements to streets and alleys and identified four new open spaces that could be built in coordination with private development. Since publishing the draft public realm plan, some components of the draft plan have been incorporated into projects that have undergone or are undergoing CEQA compliance analysis and now included in the cumulative project list. Specifically, roadway improvements along 11th Street from Market Street to Bryant Street, Valencia Street from Market Street to

⁶ The San Francisco County Transportation Authority certified the Van Ness Avenue BRT EIR, State Clearinghouse No. 2007092059, on September 10, 2013. An Addendum to the Final Environmental Impact Report was approved on March 4, 2016, reflecting changes made to the project during final design.

⁷ Plan Bay Area was necessitated by the adoption of Senate Bill 375, which required regions to prepare a Sustainable Communities Strategy (or Alternative Planning Strategy) to reduce GHGs by linking growth to transit.

⁸ Plan Bay Area, Priority Development Area, and Transit Priority Area Map for CEQA Streamlining, 2018, <https://www.planbayarea.org/pda-tpa-map>, accessed March 8, 2018.

⁹ San Francisco Planning Department, *Market Street Hub Project Public Realm Plan Draft*, March 2017, http://default.sfplanning.org/plans-and-programs/in-your-neighborhood/hub/Hub_Public_Realm_Plan_Final_Web.pdf, accessed October 26, 2018.

15th Street, the portion of Stevenson Street off of 12th Street, and the four open spaces identified in the draft plan will be evaluated in other CEQA documents. **Figure 2-3** shows the proposed Hub Public Realm Plan versus the components studied in this EIR.

PLAN STRUCTURE

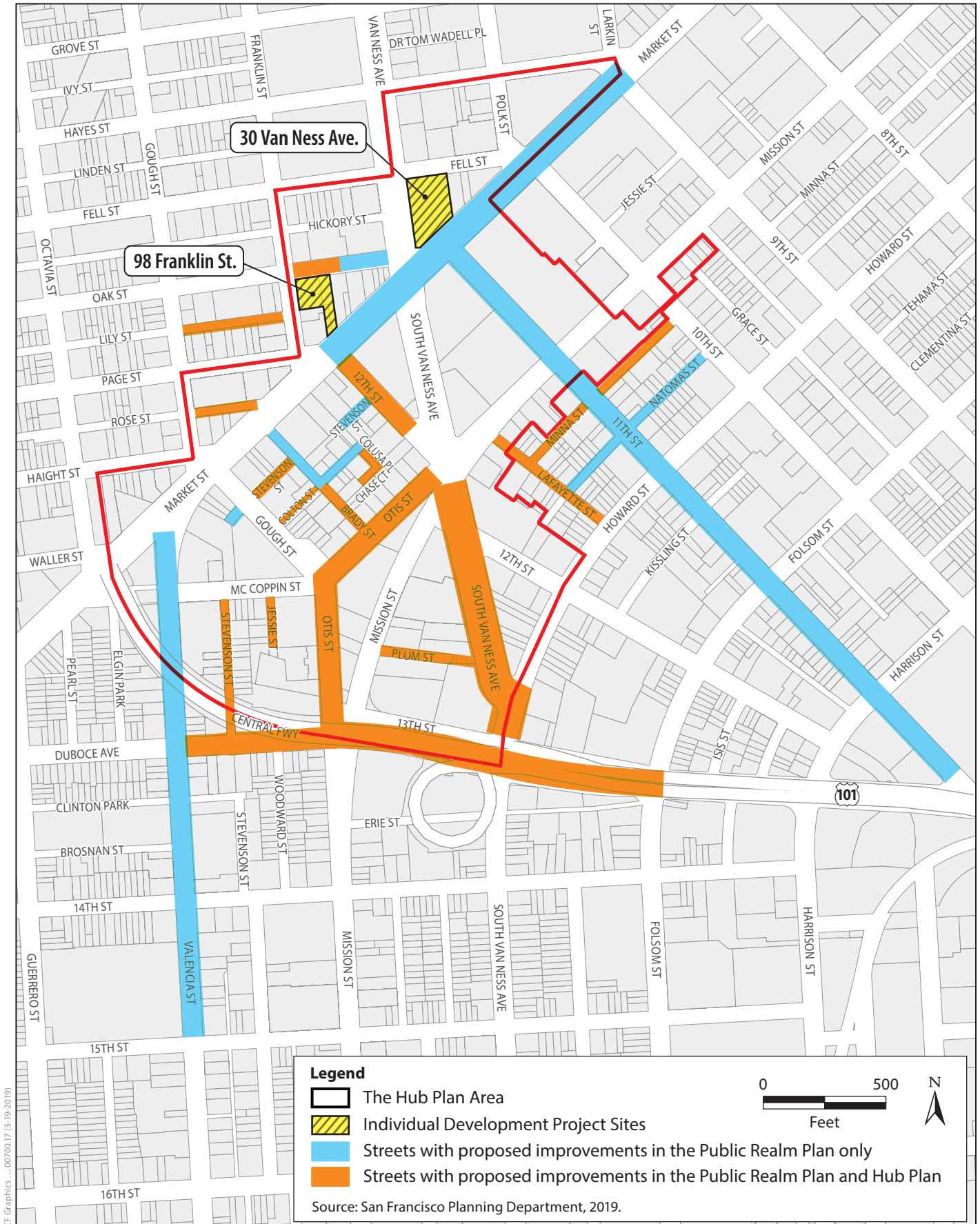
The Hub Plan defines neighborhood priorities and guides growth and development in the area. The Hub Plan also seeks to capitalize on current economic and development opportunities and analyze the potential for zoning and policy refinements that will better ensure that the area's growth supports the goals of the City and County of San Francisco (City) for housing, transportation, the public realm, and the arts. The proposed modifications to the zoning controls and policies allow for flexibility for future development.

INDIVIDUAL DEVELOPMENT PROJECTS

Two individual private development projects within the Hub Plan area are being evaluated in this EIR at a project-specific level. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a 45-story building with ground-floor retail space, 11 floors of office space, and approximately 33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the existing 100-space surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades 9–12 of FAIS). In addition, the 98 Franklin Street Project proposes improvements to Lily Street between Gough and Franklin streets, including a midblock crossing on Lily Street between Franklin and Gough streets (to connect FAIS properties at 150 Oak Street, one block west of 98 Franklin Street), as well as improvements on the western portion of Oak Street between Van Ness Avenue and Franklin Street. These projects are discussed in more detail in Section 2.E, Characteristics of Individual Development Projects, below.

THE HUB HOUSING SUSTAINABILITY DISTRICT

This EIR evaluates the designation of portions or all of the Hub Plan area as an HSD, in accordance with Assembly Bill 73 (Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11). Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Qualifying projects would still be required to implement applicable



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Figure 2-3
Street Network Changes Proposed in the Public Realm Plan and/or the Hub Plan

mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations. Projects that qualify under the provisions of the HSD would not be subject to further environmental review.

DENSITY BONUS PROGRAMS

The state density bonus law in California, adopted in 1978, allows developers to select concessions from local development standards if a certain percentage of affordable units is included in a project. In 2017, the City approved amendments to its local housing density bonus program, codified in Planning Code section 206, Affordable Housing Bonus Programs. Section 206 incorporates, among other programs, the 100 Percent Affordable Housing Bonus Program (Planning Code section 206.4, approved in 2016 as section 206.3), which allows up to three additional stories for fully affordable residential projects and establishes procedures for projects that seek approval under a state density bonus (Planning Code section 206.6). Both of these programs would be applicable to the Hub Plan area.¹⁰

The growth assumptions in this Draft EIR are derived from the overall citywide growth assumptions developed by the department, which are based on the regional planning effort underlying Plan Bay Area. The Plan Bay Area growth allocations for the city can be accommodated under existing height and bulk controls; therefore, existing zoning is not currently a constraint on growth or a determinant of the overall amount of housing growth expected citywide by 2040. It is assumed that increased residential development in the Hub Plan area due to the use of state or local density bonus programs and/or the Hub Plan's own height bonus will lead to a concomitant decrease in residential development elsewhere in San Francisco. Specifically, although the Hub Plan seeks to concentrate and focus a greater percentage of San Francisco's growth in the Hub Plan area, adoption of the Hub Plan in and of itself would not alter the overall growth forecast for San Francisco under Plan Bay Area.¹¹ Therefore, the Draft EIR adequately analyzes the growth that could occur pursuant to both the state density bonus program and the Hub Plan's own height bonus provision and the resulting effects related to, for example, transportation, air quality, and noise. Regarding other effects, such as wind or shadow effects, which are site specific, it would be speculative to analyze the future height and/or density on any given site when the specific sites where such a height or density bonus might be sought are unknown. Subsequent development projects in the Hub Plan area would undergo project-level CEQA review, as applicable, to

¹⁰ Two other components of section 206, Housing Opportunities Mean Equity – San Francisco, or HOME-SF (section 206.3), and the analyzed state density bonus program (section 206.5), would not apply to the Hub Plan area because they are applicable only to use districts where residential density is regulated by lot size. In the Hub Plan area, residential density is regulated by building height and bulk controls, an approach generally known as “form-based zoning.”

¹¹ When allocating the anticipated future regional growth that was assigned through the regional planning process to San Francisco, the department, as part of a forecasting exercise for a plan area, such as the Hub Plan area, maintains cumulative totals that are consistent with the regional plan and inclusive of whatever proposed zoning changes are being analyzed.

determine whether they would create significant environmental effects that were not disclosed in this Draft EIR as a result of the additional height increases or bulk modifications permitted under the state density bonus law.

B. PROJECT OBJECTIVES

This Draft EIR presents a statement of objectives sought by the proposed projects. Objectives define the projects' intent, explain the projects' underlying purpose, and facilitate the formation of project alternatives.

THE HUB PLAN AND HOUSING SUSTAINABILITY DISTRICT

In this Draft EIR, the Hub Plan's six primary goals are used as the project objectives. The six goals are:

- Create a vibrant mixed-use neighborhood.
- Maintain a strong preference for housing as a desired use.
- Encourage residential towers on selected sites.
- Establish a functional, attractive, and well-integrated system of public streets and open spaces.
- Reconfigure major streets and intersections to make them safer for people walking, bicycling, and driving.
- Take advantage of opportunities to create public spaces.

In addition, the project objectives for the Hub HSD are:

- To allow for ministerial approval of housing projects in the Hub Plan area.
- To streamline environmental review of housing projects in the Hub Plan area.

PROJECT-SPECIFIC OBJECTIVES

30 VAN NESS AVENUE PROJECT

The project sponsor for the 30 Van Ness Avenue Project has identified the following proposed project objectives:

- Create a high-density, mixed-use development that takes advantage of a prominent downtown location along routes for people riding public transit, people walking, and people bicycling by providing a range of residential unit types, office space, and neighborhood-serving retail.
- Contribute to implementation of the city's general plan housing element goals for affordable housing by constructing a high-density, mixed-use project, including sufficient office use, which would support the creation of affordable units.

- Transform the intersection of Market Street and Van Ness Avenue by creating an engaging and vibrant street level that offers a mix of retail uses that enlivens the area through a mix of day and nighttime uses within the project site.
- Develop an underused site, connecting the Civic Center, Mid-Market, and Hayes Valley neighborhoods.
- Create a modern, creative, functional workplace environment that attracts office tenants and a residential tower design that maximizes views for residents.
- Provide adequate vehicular parking and vehicular and (commercial and passenger) loading access to serve the needs of the project and its visitors.

98 FRANKLIN STREET PROJECT

The project sponsor for the school component of the 98 Franklin Street development has identified the following proposed project objectives:

- Develop a new high school building for International High School (grades 9–12 of FAIS) in proximity to FAIS’s other campus buildings near the intersection of Franklin and Oak streets in San Francisco’s Downtown/Civic Center neighborhood and in proximity to public transportation facilities.
- Replace an underutilized site with a vibrant mixed-use development, including an educational institution of long standing in the city.
- Leverage the value of the 98 Franklin Street property by partnering with a residential developer to build housing in the air space above the school.
- Develop a project that enhances the larger community and generally conforms to the objectives and policies of the Hub Plan.

The project sponsor for the residential component of the 98 Franklin Street development has identified the following proposed project objectives:

- Assist FAIS’s efforts to develop a new building for the International High School on the lower five floors of the proposed building.
- Increase the supply of housing near the Van Ness Avenue and Market Street intersection.
- Construct a substantial number of dwelling units to contribute to implementation of the City’s general plan housing element goals and the Association of Bay Area Governments’ Regional Housing Needs Allocation for the city.
- Create a mixed-use project that is generally consistent with the land use, housing, open space, and other objectives and policies of the Hub Plan.

C. PROJECT LOCATIONS

THE HUB PLAN AND HOUSING SUSTAINABILITY DISTRICT

The Hub Plan area, which is irregular in shape, is described in Section 2.A, above. The regional location and project boundaries are shown in **Figure 2-1**, p. 2-2, and **Figure 2-2**, p. 2-4. Altogether, the Hub Plan area comprises approximately 84 acres, which are spread across various city neighborhoods, such as the Downtown/Civic Center, SoMa, Western Addition, and Mission neighborhoods.¹² The Hub Plan area is encompassed entirely within the boundaries of the Market and Octavia Area Plan, a fully urbanized area with mixed uses. In addition to the streets in the Hub Plan area, the project includes several adjacent streets, specifically, Lily Street between Gough Street and Franklin Street, Minna Street between 10th Street and Lafayette Street, Lafayette Street between Mission Street and Howard Street, 13th Street between Howard Street and Folsom Street, and Duboce Avenue between Valencia Street and Mission Street. The Hub HSD would be designated within all or portions of the Hub Plan area.

The area is characterized by an overhead freeway structure (the Central Freeway, with 13th Street beneath), various freeway entrance and exit ramps, a wide variety of land uses, considerable housing, and many new residential developments, either going through the entitlement process or under construction.¹³ Current land uses in the Hub Plan area include housing, in a mix of older and newer residential buildings; office uses; industrial spaces; commercial uses, such as gas stations; retail spaces; and some cultural and social institutions. Light industrial and mixed-use buildings tend to be on major streets, while residential units are on local streets. The heights of the buildings in the Hub Plan area vary, with most being low- to mid-rise buildings.

A high volume of vehicular traffic, much of it freeway bound, is present on area streets, in particular South Van Ness Avenue, Mission Street, Duboce Avenue, and 13th Street. These streets have large areas of asphalt, islands for people walking, and high injury rates.¹⁴ Many streets do not include amenities for people walking (e.g., lighting, street trees). Several intersections in the area pose risks to people walking, bicycling, and driving, including those

¹² San Francisco Planning Department, Neighborhood Groups Map, <http://sf-planning.org/neighborhood-groups-map>, accessed January 8, 2018.

¹³ Much of this development was authorized by the Market and Octavia Area Plan. See San Francisco Planning Department, *Market and Octavia Area Plan*, May 30, 2008, http://default.sfplanning.org/Citywide/Market_Octavia/Market_and_Octavia_Area_Plan_2010.pdf, accessed January 3, 2018.

¹⁴ San Francisco Vision Zero, *Vision Zero High Injury Network: 2017*, <http://visionzerosf.org/maps-data/> accessed November 2, 2018.

at Market and Gough streets as well as South Van Ness Avenue and Mission Street.¹⁵ Elevations across the Hub Plan area range from 25 to 100 to feet above mean sea level.¹⁶

PUBLIC TRANSIT

There are numerous public transit routes within and surrounding the Hub Plan area. The San Francisco Municipal Railway (Muni) J-Church, K-Ingleside, L-Taraval, M-Ocean View, N-Judah, and T-Third Street light-rail lines operate beneath Market Street and connect downtown with the rest of the city. The Muni light-rail stop at Van Ness Avenue and Market Street is located in the middle of the Hub Plan area. Between 1 a.m. and 5 a.m. on weekends, the Owl routes for the K-Ingleside, L-Taraval, M-Ocean View, N-Judah, and T-Third Street light-rail lines also stop aboveground at the Market Street and Van Ness Avenue intersection. The J-Church, K-Ingleside, L-Taraval, M-Ocean View, T-Third, and N-Judah Muni lines provide connections to regional transit providers that serve the North Bay, the Peninsula, East Bay, San Francisco International Airport, and Oakland International Airport, including Golden Gate Transit (North Bay) buses, the Blue & Gold Fleet (North Bay), water ferries, and Water Emergency Transportation Authority (East Bay and Peninsula) ferries. Access to regional transit services is also provided by Muni bus routes 6-Haight/Parnassus, 7-Haight/Noriega, 9-San Bruno, 14-Mission, 19-Polk, 21-Hayes, 47-Van Ness, and 49-Van Ness/Mission, with express service provided by Muni's 7X-Noriega Express. Rapid routes that provide service to the Hub Plan area include Muni's 9R-San Bruno Rapid and 14R-Mission Rapid. The F-line's historic streetcar provides service through the Hub Plan area along Market Street.^{17,18} The Salesforce Transit Center is located approximately 1.3 miles east of the Hub Plan area, and the future Central Subway would be located approximately 0.8 mile to the east.

Direct regional transit access to and from the northern portion of the Peninsula and the East Bay is provided by Bay Area Rapid Transit (BART), located approximately 0.25 mile east of the Hub Plan area at the Civic Center BART station on Market Street, between Seventh and Eighth streets, and approximately 0.3 mile south of the Hub Plan area at 16th and Mission streets. Direct regional access to the rest of the Peninsula and South Bay is provided by Caltrain, with its terminal station located at King and Fourth streets, approximately 2 miles southeast of the Hub Plan area. Direct regional access to the rest of the Peninsula and South Bay is provided by Caltrain, with its

¹⁵ San Francisco Vision Zero, *Vision Zero High Injury Network: 2017*, <http://visionzerosf.org/maps-data/> accessed November 2, 2018.

¹⁶ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)*, San Francisco, California, prepared for the San Francisco Planning Department, December 2018.

¹⁷ San Francisco Municipal Transportation Agency, *Muni Map*, July 2017, <https://www.sfmta.com/sites/default/files/sfnta-webmap-august2017-j2kl.pdf>, accessed January 8, 2018.

¹⁸ San Francisco Municipal Transportation Agency, *Muni Routes and Stops*, 2018, <https://www.sfmta.com/getting-around/muni/routes-stops>, accessed January 8, 2018.

terminal station located at King and Fourth streets, approximately 2 miles southeast of the Hub Plan area.

INDIVIDUAL DEVELOPMENT PROJECTS

30 VAN NESS AVENUE PROJECT

The site for the 30 Van Ness Avenue Project encompasses an approximately 38,100-square-foot lot on Assessor's Block 0835/Lot 004. It is fully developed with an approximately 75-foot-tall, five-story building that includes a variety of office and retail uses, City government offices, an optometrist office, a café, and a retail and pharmacy use doing business as Walgreens. There is currently approximately 180,330 square feet of general office space, including 15,850 square feet for vehicular parking, 12,790 square feet of pharmacy use, and 1,050 square feet of restaurant use. As shown in **Figure 2-2**, p. 2-4, the project site is trapezoidal and bounded by 164 feet of frontage on Fell Street to the north, 39 Fell Street and 1446 Market Street buildings to the east (Assessor's Block 0835/Lot 003), 197 feet of frontage on Market Street to the south, and 275 feet of frontage on Van Ness Avenue to the west. The entire project site is covered with impervious hardscape; the topography (at approximately 45 feet above sea level) slopes down slightly from Van Ness Avenue and Fell Street toward Van Ness Avenue and Market Street.

The project site at 30 Van Ness Avenue is in the Downtown/Civic Center neighborhood, within the Downtown General Commercial (C-3-G) zoning district and the Van Ness and Market Downtown Residential SUD. The first two stories of the building were constructed in 1908; the remaining three stories were built in 1964. There are approximately 42 ground-floor vehicular parking spaces in the building, which are accessed via a curb cut from Fell Street and reserved for office tenants. Passenger and commercial loading is available along a yellow curb on Van Ness Avenue. Sidewalks are present on all sides of all streets surrounding the project site. The main entrance for people walking to the office lobby is on Van Ness Avenue. The optometrist office and café also have access for people walking off of Van Ness Avenue. There is an entrance to the Walgreens on the corner of Van Ness Avenue and Market Street. In addition to ground-floor retail entrances, there are five other secondary entrances for people walking along Van Ness Avenue, four on Fell Street and three on Market Street. There are approximately 670 office employees and approximately 40 retail employees within the existing building. There are currently five street trees along the building's Van Ness Avenue frontage and four along the Market Street frontage; there are no trees along the Fell Street frontage.

SURROUNDING USES

The project site at 30 Van Ness Avenue is surrounded by residential, commercial, and office uses. North of the project site, at Van Ness Avenue and Fell Street, a commercial high-rise building (100 Van Ness) was recently renovated and converted into a mixed-use building with ground-floor retail and residential uses on the floors above. East of the project site, there are two- to four-story buildings with commercial and residential uses. South of the project site, on the south side of Market Street, taller commercial and office buildings include Bank of America, San Francisco Municipal Transportation Agency (MTA), Square informational technology service, and Uber Technologies. West of the project, on Van Ness Avenue, is an office building that includes City offices and the New Conservatory Theater Center in the basement and a separate mixed-use building with ground-floor retail and residential uses on the floors above.

98 FRANKLIN STREET PROJECT

The site for the 98 Franklin Street Project encompasses an approximately 23,750-square-foot area on Assessor's Block 0836/Lots 008, 009, and 013. The project site at 98 Franklin Street is currently a surface vehicular parking lot with 100 off-street vehicular parking spaces. **Figure 2-2**, p. 2-4, illustrates the location of the 98 Franklin Street Project. It is an L-shaped site at the corner of Franklin and Oak streets and bounded by approximately 142 feet of frontage on Oak Street to the north, the 1546–1564 Market Street building (Assessor's Block 0836/Lot 007) to the east, approximately 54 feet of frontage on Market Street to the south, and approximately 125 feet of frontage on Franklin Street to the west. The entire project site is paved; the topography of the site is relatively flat.

The project site at 98 Franklin Street is in the Downtown/Civic Center neighborhood. The block on which the project site is located is within the Downtown General Commercial (C-3-G) zoning district. In addition, the project site borders a Neighborhood Commercial Transit (NCT-3) zoning district and the Van Ness and Market Downtown Residential SUD. Vehicular parking for the project site is accessed via a 25-foot curb cut/driveway on Franklin Street and three 15-foot curb cuts along Oak Street. There are commercial and passenger loading spaces (and one on-street blue curb/Americans with Disabilities Act-compliant space) west of 20 Franklin Street, which is approximately 50 feet south of the site. Sidewalks are present on all sides of all streets surrounding the project site. Access for people walking is from the sidewalk on both Franklin and Oak streets. The parking lot use at 98 Franklin Street currently employs approximately two people.

There is no vegetation on the project site, but there are two street trees along the sidewalk on Franklin Street, one street tree along the sidewalk on Oak Street, and one street tree along the sidewalk on Market Street.

SURROUNDING USES

The site for the 98 Franklin Street Project is a surface parking lot, which is adjacent to sites that are currently under construction with residential uses and ground-floor retail. Immediately to the east is 1546–1564 Market Street, which, as of spring 2019, had a 12-story, 110-unit residential mixed-use building under construction (2012.0877E). Immediately south of 98 Franklin Street is a site at 22–24 Franklin Street where an eight-story mixed-use building is under construction. North of the site, across Oak Street, lies the six-story San Francisco Conservatory of Music and a surface vehicular parking lot. West of the site, across Franklin Street, lies a three-story residential and commercial building. Across the intersection of Franklin and Oak streets, which is northwest of the site, is the International High School of FAIS.

D. THE HUB PLAN COMPONENTS

PROGRAMMATIC AND PROJECT-SPECIFIC LEVELS OF ENVIRONMENTAL REVIEW

This section describes the Hub Plan analyzed in this Draft EIR. This Draft EIR analyzes potential physical environmental impacts that may occur if the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street are implemented. This Draft EIR contains both analysis at a “program” level, pursuant to CEQA Guidelines section 15168 for adoption and implementation of the plan, and a “project” level for streetscape and street network improvements as well as the two individual development projects, pursuant to CEQA Guidelines section 15161. A programmatic analysis is appropriate for a project that will involve a series of actions that are (1) related geographically, (2) logical parts in a chain of contemplated actions, (3) connected as part of a continuing program, and (4) carried out under the same authorizing statute or regulatory authority and have similar environmental impacts that can be mitigated in similar ways (CEQA Guidelines section 15168).

The evaluation of the Hub Plan in the Draft EIR is programmatic. Its assessment of potential environmental impacts is based on the various plan components that are required for its implementation and would facilitate its goals and objectives. CEQA Guidelines section 15168 notes that the use of a programmatic analysis “ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis; avoids duplicative reconsideration of basic policy considerations; allows the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time, when the agency has greater flexibility to deal with basic problems or cumulative impacts; and allows for a reduction in paperwork.” When a programmatic EIR is completed, additional environmental review may be warranted in the future as later activities that fall within the program are proposed, as needed. With the exception of projects that seek ministerial approval pursuant to the Hub Plan’s HSD, subsequent developments that arise from the Hub Plan would be required to undergo project-

specific CEQA analysis. The environmental review would disclose impacts particular to a specific project or project site that were not known and, therefore, could not be evaluated as part of this EIR.

In addition to that programmatic review of the Hub Plan, this Draft EIR evaluates two individual development projects within the Hub Plan area (i.e., the 30 Van Ness Avenue Project and 98 Franklin Street Project) at a project-specific level. Likewise, the Draft EIR studies the streetscape and street network improvements proposed by the Hub Plan at the project level because of the sufficiency of detailed information available. The two individual development projects and the streetscape and street network improvements proposed by the Hub Plan and analyzed at the project level will be fully studied under CEQA, allowing for project approval following certification of the EIR.

Last, this Draft EIR evaluates the designation of portions or all of the Hub Plan area as an HSD, in accordance with Assembly Bill 73. Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations but would not require additional CEQA analysis.

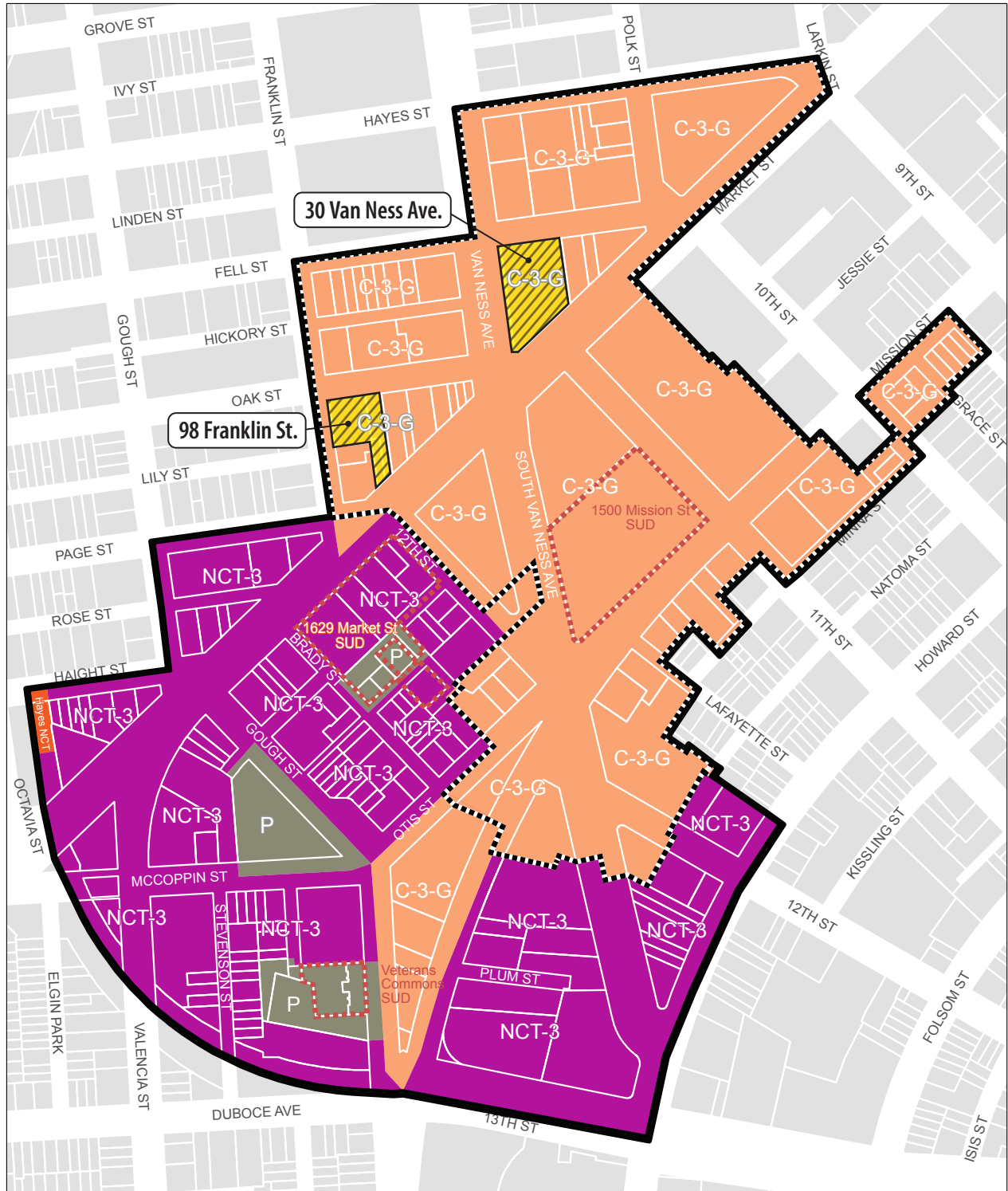
LAND USE (ZONING) CHANGES

Consistent with its goal to increase the capacity for housing, the Hub Plan includes the objective of increasing the area where housing is permitted. The existing zoning in the Hub Plan Area is shown in **Figure 2-4**. There are four existing zoning districts in the Hub Plan area: Neighborhood Commercial Transit (NCT-3), Downtown General Commercial (C-3-G), Hayes Neighborhood Commercial Transit (Hayes NCT), and Public (P).

The Neighborhood Commercial Transit (NCT-3) zoning district is a transit-oriented, moderate-to high-density mixed-use neighborhood of varying scale concentrated near transit services. The zoning district supports neighborhood-serving commercial uses on lower floors and housing above.

The Downtown General Commercial (C-3-G) zoning district, which covers the western portions of downtown, allows for a variety of uses, such as retail uses, offices, hotels, entertainment venues, clubs, institutions, and high-density residential. Many of these uses have a citywide or regional function, although the intensity of development is lower than in the downtown core area. In the vicinity of Market Street, the configuration of this district reflects easy accessibility by rapid transit.

The Hayes Neighborhood Commercial Transit (Hayes NCT) zoning district is less than 1 mile from the Civic Center. This mixed-use commercial district contains a limited range of retail commercial activity, which primarily caters to the immediate need of the neighborhood.

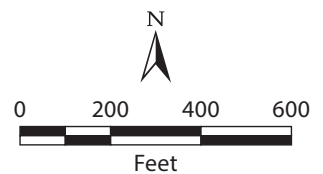


Zoning Codes

- C-3-G Downtown General Commercial
- NCT-3 Neighborhood Commercial Transit
- P Public
- Hayes NCT Hayes Neighborhood Commercial Transit

Legend

- The Hub Plan Area
- Individual Development Project Sites
- Van Ness & Market Downtown Residential Special Use District
- Special Use District



Source: San Francisco Planning Department, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 2-4
Existing Hub Plan Area Zoning Districts

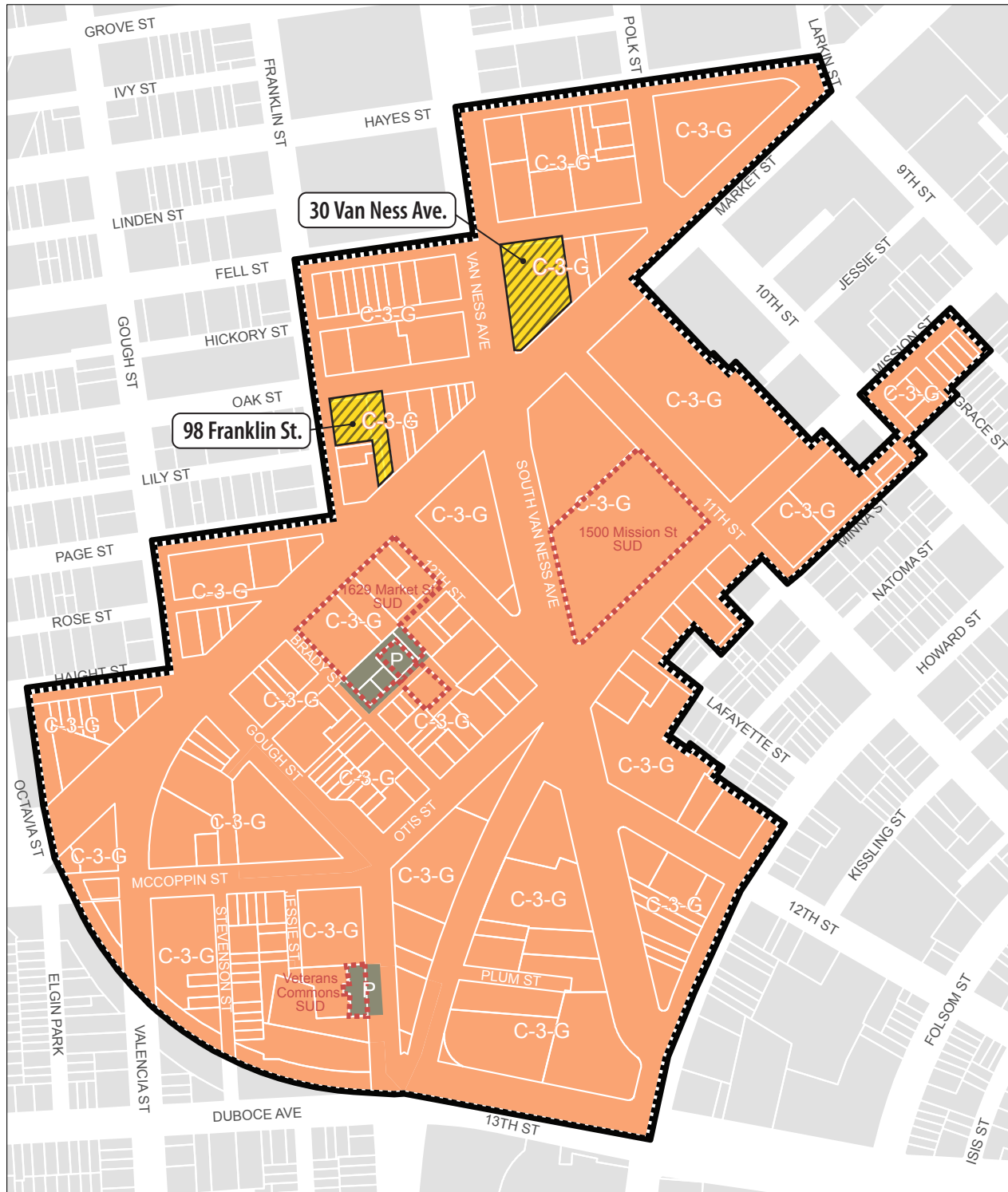
Public (P) zoning districts include land that is owned by a governmental agency and in some form of public use. This district may contain uses in conformity with the general plan and may include public structures, parks, open space, and plazas.

The majority of sites that are zoned Downtown General Commercial (C-3-G) – which primarily cover the northern portion of the Hub Plan area – are also within the Van Ness and Market Downtown Residential SUD. The Market and Octavia Area Plan created this SUD to emphasize residential uses. Nonresidential uses within this SUD are currently not permitted above the fourth floor, and there must be 2 square feet of residential uses for every 1 square foot of nonresidential land use (i.e., a 2:1 ratio). The current zoning allows for a range of residential uses as well as commercial uses on the ground floor.

Proposed zoning for the Hub Plan area is shown in **Figure 2-5**. Under the proposed zoning, there would be two zoning districts, Downtown General Commercial (C-3-G) and Public (P), and the Van Ness and Market Downtown Residential SUD would be expanded to encompass the entire Hub Plan area. A portion of the Veterans Commons SUD would be changed to the Van Ness and Market Downtown Residential SUD. All sites in the Hub Plan area would continue to be zoned for residential and active commercial uses on the ground floor. In addition, the existing prohibition on certain nonresidential uses above the fourth floor would be eliminated. Further, the SUD residential-to-nonresidential ratio would increase to 3 square feet of residential use for every 1 square foot of nonresidential land use (i.e., a 3:1 ratio), with arts, institutional, replacement office, and public uses exempt from this requirement.

Off-street vehicular parking is currently not required for projects proposed within the Hub Plan area. Moreover, the interim controls adopted for 18 months in December 2017 impose a maximum of 0.25 vehicular parking space per dwelling unit; however, projects with 25 percent onsite affordable housing may seek a conditional use authorization for up to 0.50 vehicular parking space per dwelling unit. Under the proposed Hub Plan, these controls would be made permanent, excluding the conditional use authorization option. Thereby, under the Hub Plan, 0.25 vehicular parking space per dwelling unit would be the maximum allowed for residential uses, with no conditional use authorization option. For nonresidential uses, the vehicular parking space ratio would be the same as it currently exists in the planning code, which is based on square footage.

The proposed zoning changes in the Hub Plan area would result in more cohesive zoning in the Hub area. These changes would allow for more flexibility and a wider variety of nonresidential uses allowed while increasing the residential capacity of the area and facilitating application of consistent zoning controls and impact fees across the Hub Plan area. For parcels in the Hub Plan area without proposed height and bulk limit changes, Hub Plan zoning changes are not expected to encourage more intensive development than already allowed under existing zoning controls. See the following section for the discussion of the proposed changes to the height and bulk limits.

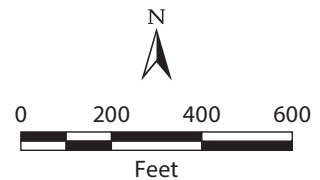


Zoning Codes

- C-3-G Downtown General Commercial
- P Public

Legend

- The Hub Plan Area
- Individual Development Project Sites
- Van Ness & Market Downtown Residential Special Use District
- Special Use District



ICF Graphics... 00700117 (4-8-2019)

Source: San Francisco Planning Department, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-5
Proposed Hub Plan Area Zoning Districts

New development resulting from proposed zoning changes in the Hub Plan area (specifically the height and bulk changes) would generate increased revenues from impact and other development fees. Funding priorities and the spending plan for fee-funded public benefits would follow the existing structure for funding allocation established through the Market and Octavia Community Improvements Fund and the Van Ness and Market Neighborhood Infrastructure Fund.

The Hub Plan would also include policies and requirements, such as a Driveway and Loading Operations Plan (DLOP), that would accommodate anticipated residential growth. The Hub Plan would require development projects of more than 100,000 net new gross square feet in the Hub Plan area to prepare a DLOP. The purpose of a DLOP is to reduce potential conflicts between driveway and loading operations, including passenger and freight loading activities, and people walking, people bicycling, and vehicles to maximize reliance on onsite loading spaces, accommodate new loading demand, and ensure that offsite loading activity is considered in the design of new buildings. Applicable projects shall prepare a DLOP in accordance with any guidelines issued by the department. The DLOP will be reviewed and approved by the department, in consultation with the MTA.

CHANGES TO HEIGHT AND BULK LIMITS

Under current zoning, much of the Hub Plan area is zoned for a height limit of 85 feet, with the exception of two major intersections at Market Street and Van Ness Avenue and Mission Street and South Van Ness Avenue, which allow towers from 250 to 400 feet. Buildings throughout the Hub Plan area generally range from two to six stories, with some notable exceptions at Market Street and Van Ness Avenue where buildings are substantially taller, with the 100 Van Ness Avenue building at 29 stories (400 feet) and the 1455 Market Street building at 23 stories (315 feet).

The Hub Plan seeks to increase the space available for housing through changes to the planning code and zoning map so as to allow the development of a taller, larger, denser, and more diverse array of buildings and heights on select parcels within the Hub Plan area. Existing height and bulk limits, which are contained in the planning code and zoning maps, are shown in **Figure 2-6**, and proposed height and bulk limits are shown in **Figure 2-7**, p. 2-23.

The proposed zoning under the Hub Plan would allow for additional height at the two major intersections noted above, with proposed maximum height limits ranging from 250 to up to 650 feet at these intersections. This proposed zoning would also increase maximum height limits at other select sites throughout the Hub Plan area. Specific changes to height limits under the Hub Plan are shown in **Table 2-1**, p. 2-24. If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,100 new residential units (approximately 15,700 new residents) compared with existing conditions. This estimate also assumes an extra 15 percent increase in the number of proposed units to account for potential density bonuses allowed by either state or local regulations.

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) “CEQA Baseline”	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
30 Van Ness Avenue	Office, ground-floor retail	38,123	75	400	520	445	The development project for this site is being studied at a project-specific level in this EIR. However, the proposed rezoning on this site would occur regardless of whether the proposed 30 Van Ness Avenue Project is approved or implemented.
1500–1540 Market Street	Office, ground-floor retail	18,700	40	400	450	410	This site contains multiple addresses/parcels. On June 15, 2017, the planning commission certified a separate EIR for a mixed-use project on this site that would have developed 310 residential units, approximately 4,024 square feet of commercial space and various streetscape improvements (1500–1540 Market Street, Case No. 2009.0159E also referred to as the “One Oak Project”). The One Oak Project, which was approved and entitled for construction, has not started

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) "CEQA Baseline"	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
98 Franklin Street	Vehicular parking lot	20,806	0	85	365	365	construction. This site is included as one of the Hub Plan sites considered for upzoning as it would allow for an additional 50 feet above what was approved as part of the previous One Oak Project.
1 South Van Ness Avenue	Office	65,000	157	400	650	493	The development project for this site is being studied at a project-specific level in this EIR. However, the proposed rezoning on this site would occur regardless of whether that project is approved or implemented.
10 South Van Ness Avenue	Vacant	50,800	55	400	590	535	This site contains two addresses/ parcels. A separate EIR is being prepared for a project on this site (Case No. 2015-004568ENV) that proposes to demolish the existing two-story building and construct an approximately 1,071,000-

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) "CEQA Baseline"	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
							<p>square-foot residential complex with ground-floor retail. That project would include two 41-story, 400-foot-tall towers (420 feet, including rooftop features) and 984 dwelling units. A variant was also studied in that EIR that considered a single 590-foot-tall tower (610 feet total, including roof screens, and elevator penthouses) and a similar program to the project being considered in that EIR. The Draft EIR for that project was published on October 17, 2018, with the responses to comments document currently in progress. This EIR for the Hub Plan considers this site for upzoning to 590 feet (consistent with the height analyzed as the variant considered in the parallel EIR).</p>

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) “CEQA Baseline”	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet)¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
30 Otis Street	Formerly vacant industrial warehouse, ballet school	35,987	270	250	320	50	On September 27, 2018, the planning commission certified a community plan evaluation under the Market and Octavia Area Plan EIR and a focused EIR for a separate project on this site (30 Otis Street, Case No. 2015-010013ENV). That project included the demolition of five existing buildings on the site and construction of an approximately 250-foot tall mixed-use building, totaling approximately 405,000 square feet and comprised of a 10-story podium structure across the entire site and a 27-story tower with 423 dwelling units, approximately 5,600 square feet of ground floor retail, and 17,000 square feet of arts activity space. This site is included as one of the Hub Plan sites considered for

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) “CEQA Baseline”	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
42 Otis Street	Warehouse, office	4,083	45	50	65	20	<p>upzoning as it would allow for an additional approximately 70 feet above what is being considered in the previously certified EIR. In December 2018, construction began on the 250-foot tall project. As this EIR was in the process of conducting technical studies and analysis, the information presented in this document considered demolition of the previously existing structures and construction of a 320-foot structure.</p> <p>On September 13, 2018, the planning commission denied a request for a Discretionary Review and approved a building permit for a separate project on this site (Case No. 2016-005406ENV). That project, which was analyzed in a community plan evaluation under the Market and Octavia Area</p>

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) “CEQA Baseline”	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
50 Otis Street	Office, motorcycle repair at ground floor	4,626	46	50	65	19	Plan EIR, would demolish the existing building and construct a new 15,805-square-foot, five-story, 55-foot-tall, mixed-used building. As of spring 2019, this project had not started construction. This site is included as one of the Hub Plan sites considered for upzoning as it would allow for an additional 15 feet above what was approved as part of the previously proposed project.
170 Otis Street	City office	47,182	115	85 and 125	45, 85, and 150	35	This site contains multiple addresses/ parcels. The current site is split between 85-X and 125-X height and bulk zoning districts. The EIR analyzes at the programmatic-level the

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) “CEQA Baseline”	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
99 South Van Ness Avenue	Commercial (public storage)	61,000	69	120	250	181	proposed shifting of the 125-X zoning to a different portion of the site to better align it with the footprint of the existing office building, which has a height of approximately 115 feet. In addition, the proposed rezoning at 170 Otis Street would create a 45-X height and bulk-zoned buffer along the west side of the site, to provide for a more appropriate transition to the existing low-scale housing along that side, as well as a similar buffer from the residential building at 150 Otis Street.
33 Gough Street	Office	45,600	30	85	250	220	

TABLE 2-1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Land Use	Existing Site Size (square feet)	Current Height (feet) “CEQA Baseline”	Current Maximum Height Allowed under Existing Zoning (feet)	Proposed Height Limit (feet) ¹	Change from Existing Height to Proposed Height Limit (feet)	Notes
110 12 th Street	Industrial, vehicular parking lot	10,524	34	85	120	86	
180 12 th Street	Industrial	12,048	30	85	120	90	
194 12 th Street	Industrial	5,776	34	85	120	86	
154 South Van Ness Avenue	Retail	13,422	42	85	120	78	
160 South Van Ness Avenue	City-leased office	14,000	37	85	120	83	
170 South Van Ness Avenue	Commercial retail	49,000	38	85	120	82	
1695 Mission Street	Industrial	64,612	39	85	120	81	

Source: San Francisco Planning Department 2018.

¹ Per planning code section 260, additional height is permitted for rooftop mechanical features.

CIRCULATION, STREETScape IMPROVEMENTS, AND STREET NETWORK CHANGES

The Hub Plan area's relatively high density is supportive of walking, although the wide and predominantly one-way streets, vacant lots and buildings, long blocks, intermittent narrow sidewalks, and elevated freeway segments with associated ramps do not contribute to a positive walking or bicycling experience and present many physical challenges related to circulation for people walking or people bicycling in the area. The Hub Plan proposes to improve major streets and alleys in the Hub Plan area, as shown in **Figure 2-2**, p. 2-4. The goals of these changes are to create a safer transportation experience for everyone; make transit, walking, bicycling, and car-sharing the preferred ways for people to travel; facilitate passenger loading and commercial deliveries; and enhance the public realm. Other projects in the city, such as the Van Ness Avenue Bus Rapid Transit Project and Better Market Street Project, as well as other private development projects, are evaluating and implementing other streetscape and street network improvements in the vicinity of the Hub Plan; these other improvements, which are independent of the Hub Plan area, will be considered in the cumulative analysis.

To ensure that the proposed streetscape and street network improvements foster development of a neighborhood that is consistent with the Hub Plan's goals, the Hub Plan incorporates Market and Octavia Area Plan Objectives 7.1 and 7.2, which aim to "create a vibrant, new mixed-use neighborhood in SoMa west" and "establish a functional, attractive, and well-integrated system of public streets and open spaces in the SoMa west area to improve the public realm," respectively. The Hub Plan builds off of these existing policies and is consistent with the intent of the Market and Octavia Area Plan. Furthermore, the Hub Plan proposes circulation changes at major intersections, such as Market Street and Van Ness Avenue as well as Mission Street and South Van Ness Avenue, to improve safety.

STREETS

Specific design recommendations for implementing the goals of the Hub Plan have been developed for the following streets:

- 12th Street: Market Street to Mission Street
- Gough Street: Stevenson Street to Otis Street
- Mission Street/South Van Ness Avenue intersection
- South Van Ness Avenue: Mission Street to 13th Street
- Otis Street: South Van Ness Avenue to Duboce Avenue
- 13th Street/Duboce Avenue: Folsom Street to Valencia Street

The streets with proposed improvements are shown in **Figure 2-2**, p. 2-4.

12TH STREET: MARKET STREET TO MISSION STREET

The block of 12th Street between Market and Mission streets is currently a 15-foot-wide, two-way, two-lane street with very low vehicular traffic volumes. Major new developments would line 12th Street with active ground-floor uses and residential uses above. The Market and Octavia Area Plan identified the need to redesign 12th Street to recapture space for people walking. The Hub Plan builds on the intent of the Market and Octavia Area Plan by repurposing the public right-of-way to create wider sidewalks and encourage a more active and landscaped environment for people walking.

Proposed improvements for 12th Street from Market Street to Mission Street are shown in **Figure 2-8** and include the following:

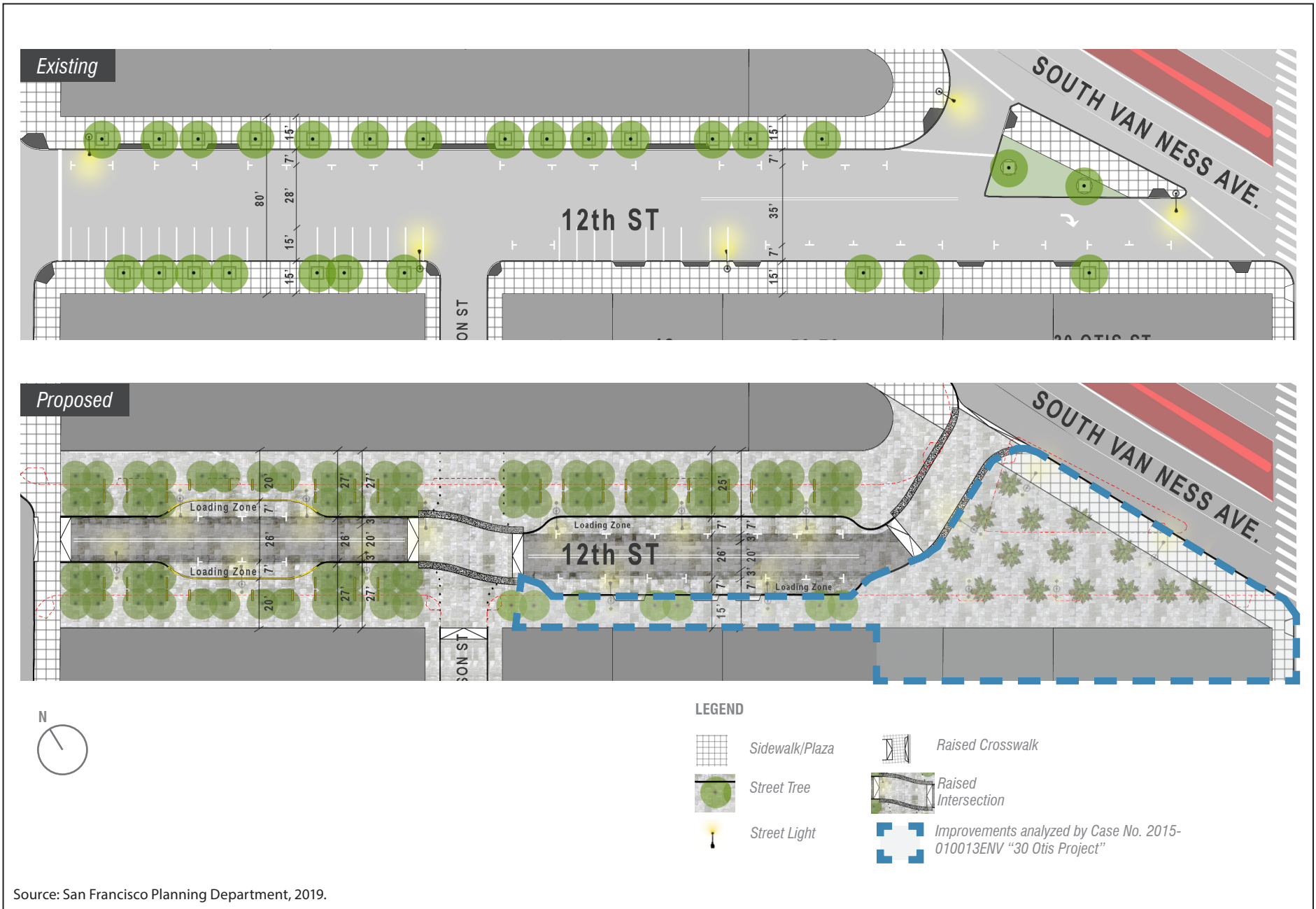
1. Widen sidewalks and create new linear public open spaces with street trees. The east sidewalk of 12th Street would be widened from 15 to 30 feet for the full length of the block. This would create a linear park experience, leading into the large public plaza at the south end of 12th Street, which is being implemented with realignment of 12th Street, as part of the Van Ness Bus Rapid Transit Project.
2. Upgrade streetlights to City standards and provide new lights scaled for people walking and other streetscape amenities.

GOUGH STREET: STEVENSON STREET TO OTIS STREET

On Gough Street between Stevenson and Otis streets, Gough Street is currently a two-way street with two southbound travel lanes and three northbound travel lanes. The Hub Plan redesign would widen the sidewalk fronting 33 Gough Street to create space for retail at the Gough Street/Otis Street intersection. It also proposes widening the east and west sidewalks on Gough Street, reconfiguring vehicular parking, and making other changes to the intersection, all of which are aimed at calming vehicular traffic to improve safety for all users and enhance the experience for people walking.

Proposed improvements for Gough Street from Stevenson Street to Otis Street are shown in **Figure 2-9**, p. 2-35, and include the following:

1. Widen the west sidewalk of Gough Street from 11 to 19 feet between Stevenson and Otis streets. Retain two southbound travel lanes on Gough Street. Retain a single northbound through lane from the new two-way Otis Street.
2. Widen the east sidewalk of Gough Street, fronting 8–12 Gough Street and 86 Otis Street, from 5 to 15 feet. Reconfigure vehicular parking in the local access lane on the east side of Gough Street.



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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-8
12th Street: Market Street to Mission Street



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-9
Gough Street: Stevenson Street to Otis Street and
Otis Street: South Van Ness Avenue to Duboce Avenue

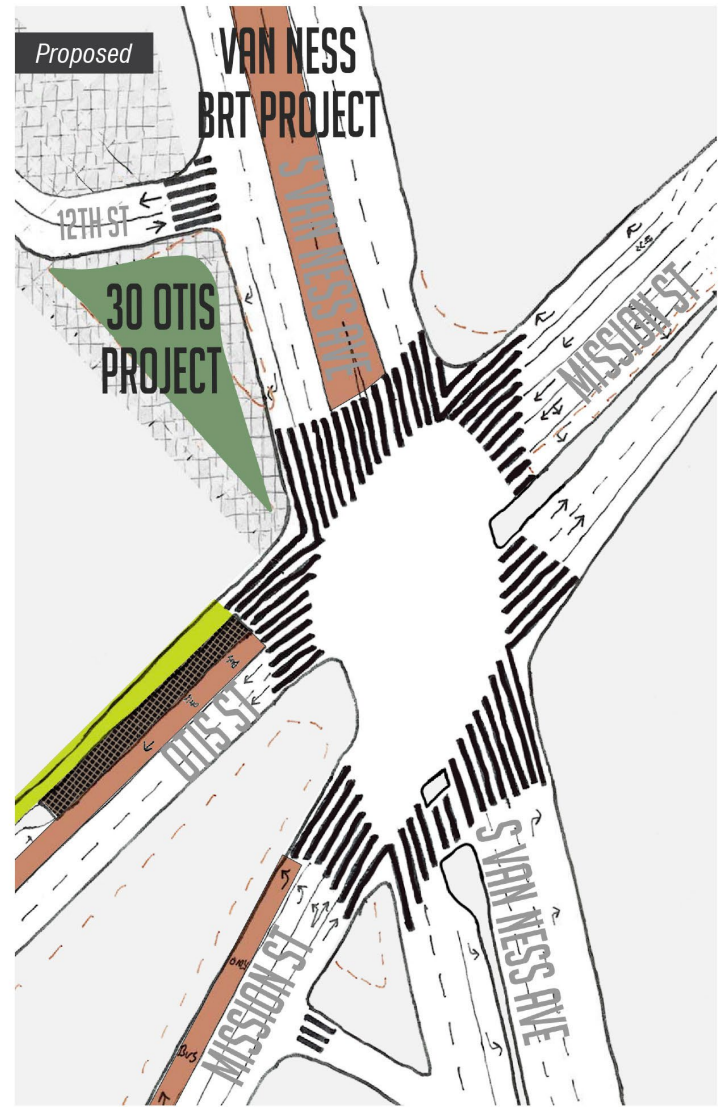
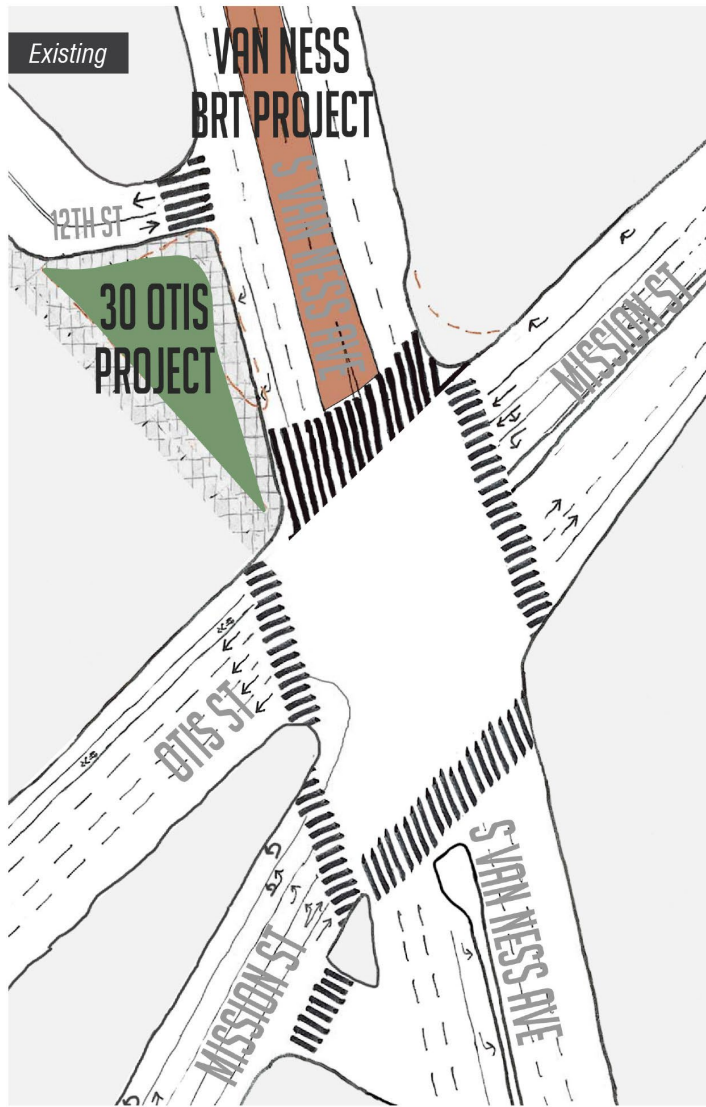
MISSION STREET/SOUTH VAN NESS AVENUE INTERSECTION

The Mission Street and South Van Ness Avenue intersection is a convergence of six different streets with different scales and unusual geometries. Currently, South Van Ness Avenue is a two-way street with three travel lanes in each direction, 12th Street is a two-way street with one travel lane in each direction, Otis Street is a one-way street with four southbound travel lanes, and Mission Street is a one-way street with five northbound travel lanes. The Mission Street and South Van Ness Avenue intersection has high volumes of users, high rates of injury for all users, and is characterized by long crossings, long wait times, and high-speed, high-volume vehicular traffic. Although the intersection is heavily used by people walking, it also plays an important role in the efficient movement of all modes of traffic on U.S. 101 (Van Ness Avenue) as well as the heavy volume of surface transit. As a result, there are limitations with respect to major improvements.

The Hub Plan redesign is consistent with and adds to MTA's designs for this intersection, as analyzed and approved through the Muni Forward project and the Van Ness Avenue BRT project. The Hub Plan redesign would realign 12th Street to create a new 12th Street plaza in coordination with the Van Ness Bus Rapid Transit project. Under the Hub Plan, South Van Ness Avenue and 12th Street would remain two-way streets, and Otis Street and Mission Street would remain one-way streets.

Improvements proposed as part of the Hub Plan for the Mission Street/South Van Ness Avenue intersection are shown in **Figure 2-10** and include the following:

1. Realign the median and upgrade the refuge for people walking on Mission Street east of South Van Ness Avenue, widen the northeast corner of South Van Ness Avenue and Mission Street with a bulb-out, and widen the Otis Street and Mission Street corner, consistent with MTA's 14R Muni Forward and Van Ness Avenue BRT projects.
2. Widen the east sidewalk on South Van Ness Avenue south of Mission Street, as further discussed below under South Van Ness Avenue: Mission Street to 13th Street.
3. Widen the sidewalks on both the north side of Mission Street and south side of Otis Street west of South Van Ness Avenue to expand space for people walking at this intersection. The widened sidewalk on Mission Street would replace the existing U-turn lane, which would be removed under the improvements along Otis Street (see Otis Street: South Van Ness Avenue to Duboce Avenue, p. 2-38).
4. Simplify the intersection for people walking and provide more crossing time for people walking by eliminating the U-turn from eastbound Mission Street to westbound Otis Street.



- LEGEND**
- Separated Bikeway
 - 30 Otis Street Project Case No. 2015-010013ENV
 - Median Island
 - Transit-only lane
 - Bus Stop/Bus Island

Source: San Francisco Planning Department, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-10
Mission Street/South Van Ness Avenue Intersection

SOUTH VAN NESS AVENUE: MISSION STREET TO 13TH STREET

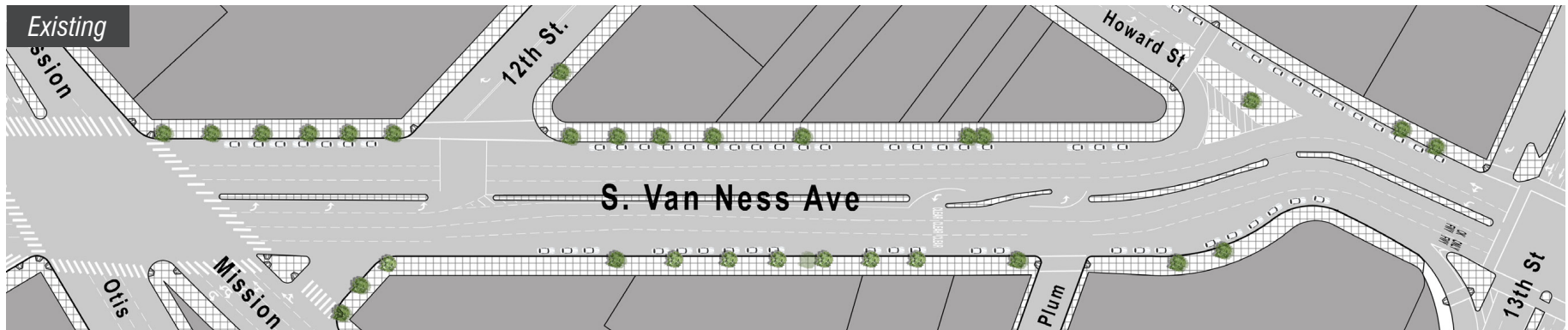
As the southbound route for U.S. 101, South Van Ness Avenue between Mission and 13th streets is a heavily traveled auto-dominated block with three travel lanes in each direction that feed the Central Freeway entrance south of 13th Street. The Hub Plan would change the existing street configuration to a boulevard design. Implementing this design would require close coordination with and approval from the California Department of Transportation (Caltrans), which manages U.S. 101.

Proposed improvements for South Van Ness Avenue from Mission Street to 13th Street are shown in **Figure 2-11**, and include the following:

1. Redesign South Van Ness Avenue as a boulevard for safety, vehicular traffic calming, and livability for residents, with through travel lanes separated from local lanes by planted medians. Retain the existing three lanes of vehicular traffic in each direction and use a boulevard-style design separating two lanes of vehicular traffic in each direction from a third local lane with use of a side median. Retain the on-street vehicular parking on both sides of South Van Ness Avenue but narrow all travel lane widths to accommodate the medians.
2. Widen or upgrade sidewalks up to 8 feet.
3. Add new lighting for people walking, per Better Streets Plan guidelines.
4. Incorporate a decorative railing along the central median, with combined lighting fixtures for people walking and the roadway as well as infill median lights.
5. Add bulb-outs at the Mission Street and 12th Street intersections.
6. Add a new signalized crossing for people walking and sidewalk bulb-outs in the middle of the block.
7. Remove the existing slip lane at the intersection of Howard Street and northbound South Van Ness Avenue to create a more typical intersection.
6. Prohibit southbound left-turn movement from South Van Ness Avenue to eastbound 13th Street at all times of the day.

OTIS STREET: SOUTH VAN NESS AVENUE TO DUBOCE AVENUE

Otis Street is a one-way, two-block-long street that functions as a couplet with Mission Street between South Van Ness and Duboce avenues. The Hub Plan design proposes modifying this segment from four southbound (vehicular) travel lanes, plus two on-street vehicular parking lanes (one each on the north and south sides of Otis Street) and a bike lane along the north side of Otis Street, to two southbound lanes and one northbound lane. In addition, the Gough,



LEGEND

- | | | | |
|---|-------------------|---|-------------------------|
|  | Sidewalk/Plaza |  | Raised Crosswalk |
|  | Street Tree |  | Special Sidewalk Paving |
|  | Street Light |  | Transit-only lane |
|  | Protected Bikeway | | |

Source: San Francisco Planning Department, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-11
South Van Ness Avenue: Mission Street to 13th Street

Otis, and McCoppin streets intersection is a convergence of three streets with different scales and unusual geometries. The Hub Plan redesign is consistent with and builds on MTA's design for Otis Street, as part of its Muni Forward project.

Proposed improvements for Otis Street from South Van Ness Avenue to Duboce Avenue are shown in **Figure 2-9**, p. 2-35, and include the following:

1. Widen the east sidewalk of Otis Street between South Van Ness Avenue and Gough Street, leaving a loading zone cut-in central to the block. The widened sidewalk on Otis Street would replace all on-street vehicular parking spaces.
2. Redesign Otis Street between Gough Street and Duboce Avenue to allow a new northbound travel lane. This new lane could be accessed both from northbound Mission Street or the Central Freeway off-ramp at Duboce Avenue. Vehicles traveling westbound on 13th Street to Duboce Avenue would not be permitted to turn right onto northbound Otis Street. Remove the U-turn lane from Mission Street to Otis Street. Prohibit U-turns.
3. Upgrade streetlights to City standards and provide new lighting for where appropriate.
4. Plant infill street trees.

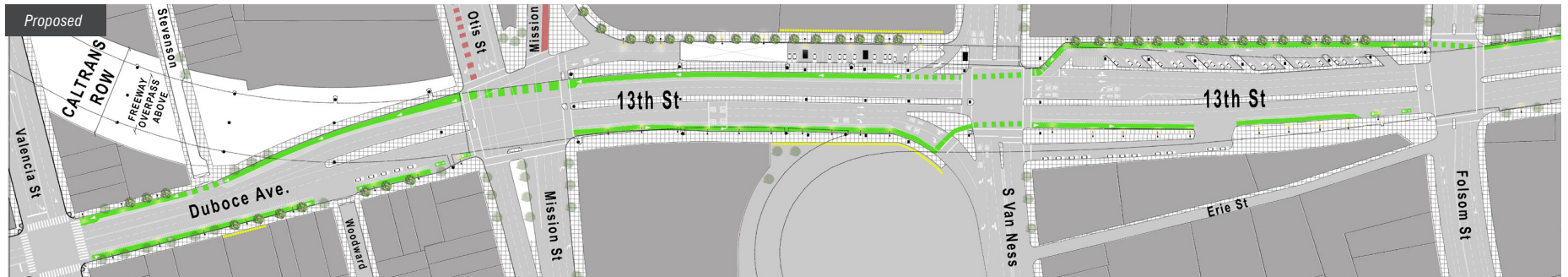
13TH STREET/DUBOCE AVENUE: FOLSOM STREET TO VALENCIA STREET

The heavily traveled auto-dominated segment of 13th Street/Duboce Avenue from Folsom Street to Valencia Street is used to enter or exit the Central Freeway or continue on local streets. The number of travel lanes vary through this segment, with three to four travel lanes in each direction. Although these streets run beneath U.S. 101, 13th Street/Duboce Avenue are also used by people walking and bicycling because they are flat and provide a direct connection from SoMa to the Mission neighborhood. The proposed safety improvements for the bikeway and people walking would connect the existing westbound vehicular-parking-protected bikeway on 13th Street, which stretches from Potrero Street to Folsom Street, to the western end of 13th Street at Mission Street, then continue and connect to Valencia Street via Duboce Avenue.










Proposed improvements for 13th Street/Duboce Avenue from Folsom Street to Valencia Street are shown in **Figure 2-12** and include the following:

1. Add a new protected westbound bikeway on 13th Street from Folsom Street to Mission Street and on Duboce Avenue from Mission Street to Valencia Street. On the three blocks within this area, the protected bikeway would be created as follows:
 - a. On 13th Street from Folsom Street to South Van Ness Avenue, create a protected bikeway by replacing existing on-street curbside vehicular parking in the westbound service lane of 13th Street and protected by a railing, bollards, or posts.

Approaching South Van Ness Avenue, the bikeway would swing out of the service lane around a new bulb-out on the northeast corner of South Van Ness Avenue and 13th Street.



LEGEND

- | | | | |
|---|-----------------------|---|---------------------------|
|  | Sidewalk/Median/Plaza |  | Raised Crosswalk |
|  | Street Tree |  | Pedestrian Lighting |
|  | Street Light |  | Protected Bikeway |
|  | Transit-only lane |  | Bike Lane |
| | |  | Bike Lane at Intersection |

ICF Graphics ... 0070017 (4-4-2019)

Source: San Francisco Planning Department, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-12
13th Street/Duboce Avenue: Folsom Street to Valencia Street

- b. On 13th Street between South Van Ness Avenue and Mission Street, create a protected bikeway, in part, by using excess roadway as well as replacing all existing on-street curbside metered vehicular parking.
 - c. On Duboce Street between Valencia and Mission streets, create protected bikeway by replacing one of three existing travel lanes from Stevenson Street to Mission Street and on-street curbside vehicular parking from Stevenson Street to Valencia Street. Removing a 400-foot-long segment of a travel lane on Duboce Avenue is possible at this location because of the new signal phase at Duboce Avenue/13th Street and Mission Street (see improvement #3, below), separating people driving and bicycling while traveling west on 13th Street to Duboce Avenue from vehicles exiting the Central Freeway and continuing westbound onto Duboce Avenue. Retain three travel lanes on westbound Duboce Avenue west of Stevenson Street.
2. Add a protected eastbound bikeway on 13th Street from Folsom Street to Mission Street and on Duboce Avenue from Mission Street to Valencia Street.
 3. Implement a signal phase change at Duboce Avenue/13th Street and Mission Street, separating westbound vehicles and bicycles traveling from 13th Street to westbound Duboce Avenue from westbound vehicles traveling from the Central Freeway off-ramp to westbound Duboce Avenue. This signal phase change is required to allow people bicycling while traveling westbound on 13th Street to continue to the bikeway on westbound Duboce Avenue without conflict from vehicles exiting the Central Freeway. Implementing this signal phase change will require coordination with and approval from Caltrans.
 4. Open the currently closed sidewalk and improve the sidewalk connection between Mission Street and South Van Ness Avenue on the north side of 13th Street. Add new street trees and lighting for people walking.
 5. Reorganize vehicular parking under the Duboce Avenue and U.S. 101 northbound off-ramp to allow for a continuous sidewalk between Mission Street and South Van Ness Avenue, as noted above under improvement #4, and enable widening of the existing sidewalk where it approaches South Van Ness Avenue to add space for people walking.
 6. Reconfigure vehicular parking in the service lane of 13th Street between Folsom Street and South Van Ness Avenue to fill in existing street space east of the service lane entrance, which is currently used for vehicular parking, creating an expanded sidewalk space approaching Folsom Street. Adding a cut-through in this filled-in and expanded sidewalk space on Folsom Street at 13th Street would facilitate the movement of people bicycling from westbound 13th Street east of Folsom Street to the new bikeway in the service lane of 13th Street west of Folsom Street.

7. Construct bulb-outs on the northeast corner of South Van Ness Avenue and 13th Street and the southwest corner of Folsom Street and 13th Street.
8. Construct vehicular traffic islands on the southwest and northwest corners of 13th Street and South Van Ness Avenue, remove the island and pork chop on the northwest corner of the intersection, and widen the side median on the south side of 13th Street east of South Van Ness Avenue.
9. Construct a raised crosswalk at Woodward Street and Duboce Avenue.
10. Plant trees.

ALLEYS

Alleys within the Hub Plan area are small-scale streets that typically carry relatively low numbers of vehicles. People driving use primarily the alleys when accessing adjacent properties. The character of the alleys varies across the neighborhood, from residential alleys to service alleys. In general, per the Better Streets Plan and Living Alleys Toolkit,¹⁹ San Francisco alleys should be designed to reinforce the right-of-way as a space for people walking; vehicle speeds should be kept low through vehicular traffic calming; materials should encourage visual interest through high-quality materials, finishes, and detailing; and alley amenities can include public seating, landscaping, and lighting for people walking to create usable public spaces that are unique and comfortable.

Alleys within the Hub Plan are intended to have a consistent palette of materials that is harmonious with the existing upgraded alleys within the Market and Octavia Area Plan, such as Jessie and Stevenson streets between McCoppin Street and Duboce Avenue. These alleys typically have high-quality paving in the roadway, raised crosswalks at intersections, and trees and other landscaping where feasible. The development of specific design recommendations for all Hub Plan alleys has been based on these existing design precedents but has also built on these designs to improve design conditions, particularly for people walking and bicycling. Recommendations that implement the primary goals of the Hub Plan have been developed for the following alleys:

- Rose Street: Gough Street to Market Street
- Minna Street: 10th Street to Lafayette Street
- Lafayette Street: Mission Street to Howard Street
- Stevenson Street: Brady Street to Gough Street
- Colusa Place: Colton Street to Chase Court
- Chase Court: Colusa Place to Dead-End

¹⁹ San Francisco Planning Department, Living Alleys Toolkit, <https://sfplanning.org/living-alleys-toolkit>, accessed January 2, 2019.

- Colton Street: Brady Street to Gough Street
- Brady Street: Colton Street to Otis Street
- Plum Street: Mission Street to South Van Ness Avenue
- Jessie Street: South from McCoppin Street
- Stevenson Street: McCoppin Street to Duboce Avenue
- Lily Street: Franklin Street to Gough Street (discussed as part of the 98 Franklin Street Project)

The alleys with proposed improvements are shown in **Figure 2-2**, p. 2-4, and improvements described further below.

ROSE STREET: GOUGH STREET TO MARKET STREET

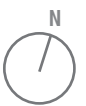
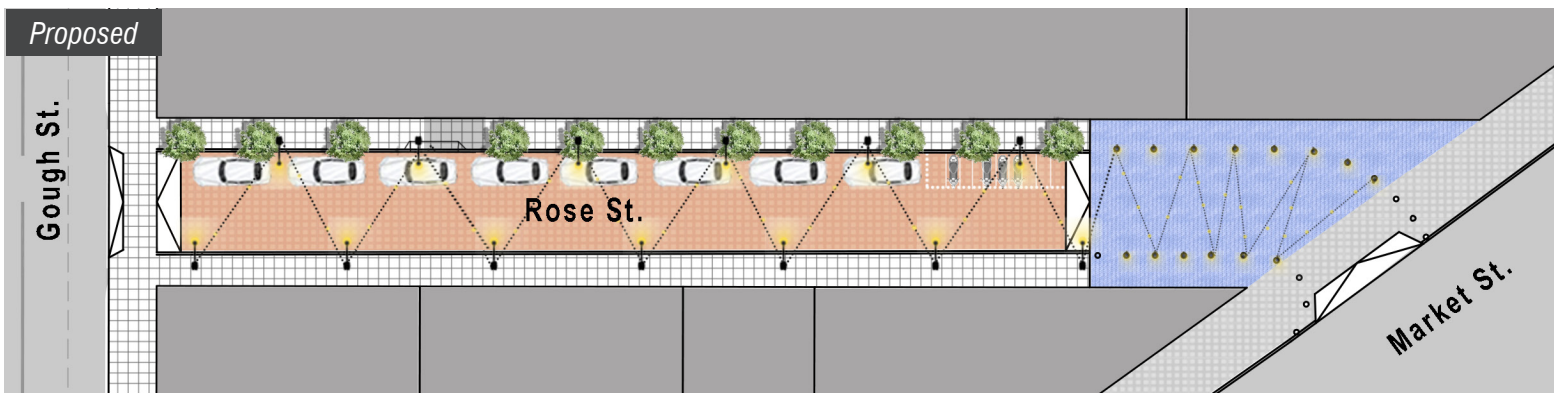
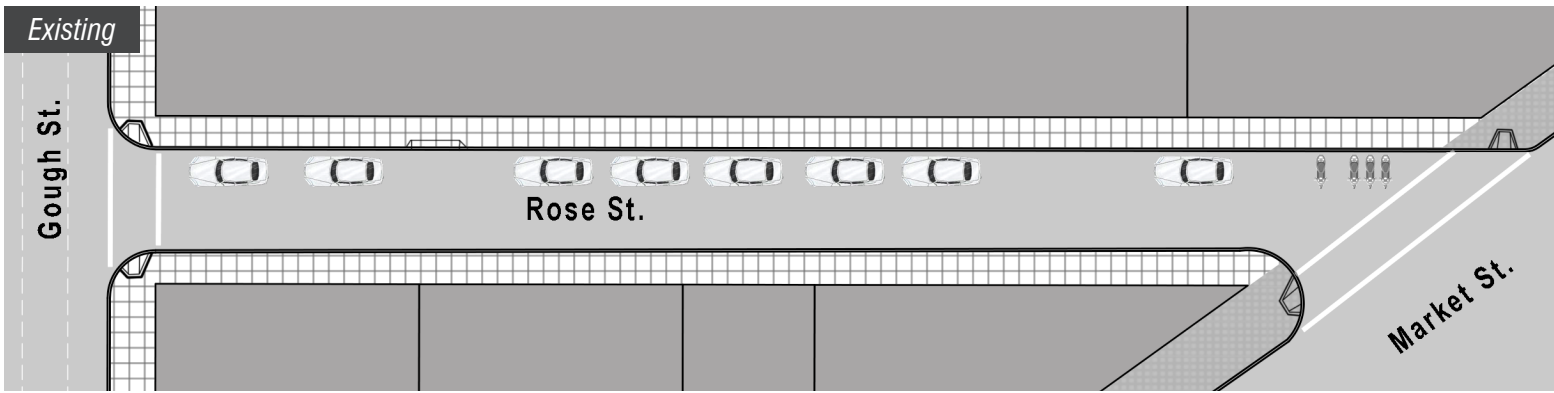
Proposed improvements at Rose Street from Gough Street to Market Street are shown in **Figure 2-13**, and include the following:

1. Add a raised crosswalk at Gough Street.
2. Add a large raised crosswalk at Market Street.
3. Add high-quality paving in the roadway.
4. Add infill street trees and raised planters to screen receptacles for garbage, compost, and recycling.
5. Provide additional commercial and passenger loading/valet pickup and drop-off and motorcycle parking.











MINNA STREET: 10TH STREET TO LAFAYETTE STREET

Proposed improvements at Minna Street from 10th Street to Lafayette Street are shown in **Figure 2-14**, p. 2-46, and include the following:

1. Add raised intersections on Minna Street at 10th and 11th streets.
2. Add trees and bollards and/or other lighting for people walking.



LEGEND

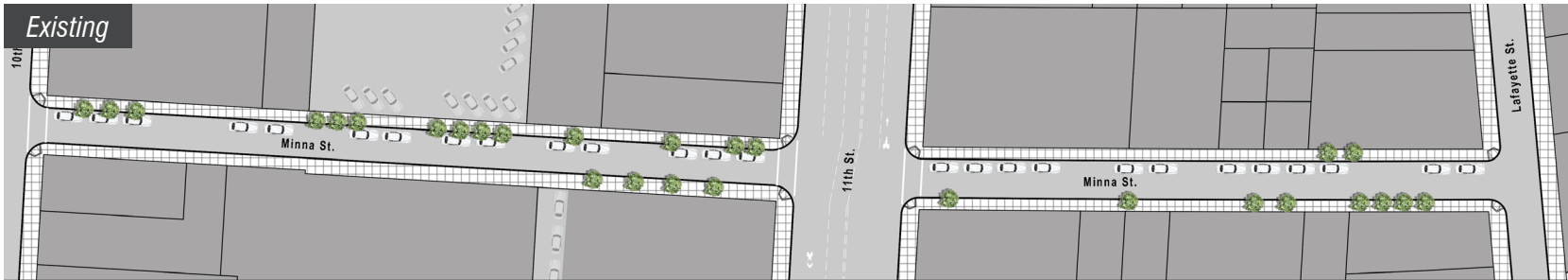
-  Sidewalk
-  Street Tree
-  Street Light
-  Special Paving
-  Raised Crosswalk
-  Pedestrian Lighting
-  Special Raised Crosswalk Paving
-  Bollard Lighting
-  Motorcycle Parking
-  String Lighting

ICF Graphics ... 0070017 (1-7-2019)



Source: San Francisco Planning Department, 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-13
Rose Street: Gough Street to Market Street



LEGEND

- | | | | | | |
|---|--------------|---|---------------------|---|---------------------|
|  | Sidewalk |  | Special Paving |  | Separated Bikeway |
|  | Street Tree |  | Raised Crosswalk |  | Raised Intersection |
|  | Street Light |  | Pedestrian Lighting | | |

ICF Graphics ... 0070017 (1-7-2019)

Source: San Francisco Planning Department, 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-14
Minna Street: 10th Street to Lafayette Street

LAFAYETTE STREET: MISSION STREET TO HOWARD STREET

Proposed improvements at Lafayette Street from Mission Street to Howard Street are shown in **Figure 2-15**, and include the following:

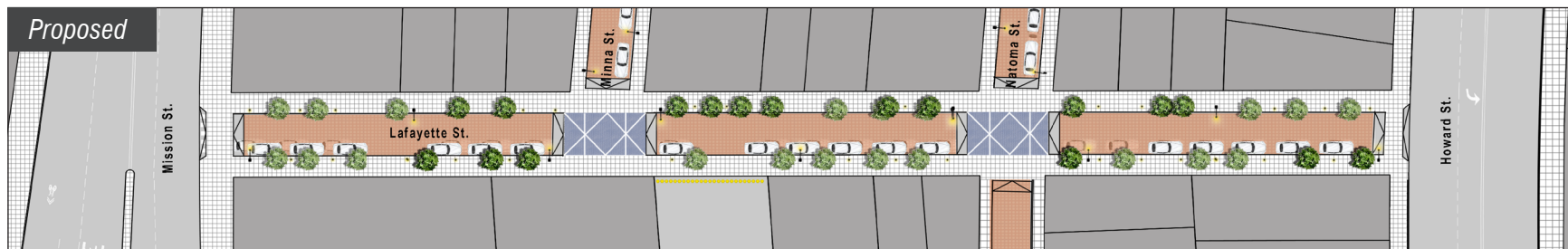
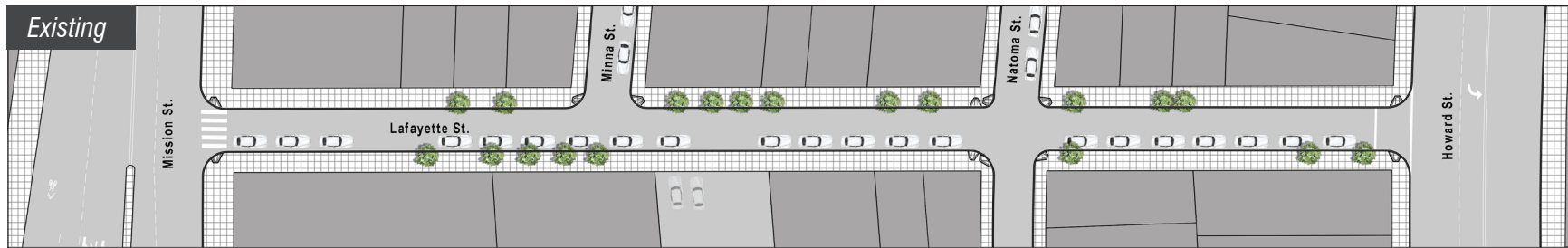
1. On Lafayette Street, at both Minna and Natoma streets, add raised intersections that are protected by truncated domes and bollards, high-quality paving in the roadway, and gateway features to emphasize these special small-scale entrances for people walking to and gathering places for this neighborhood.
2. Add raised intersections on Lafayette Street at Mission Street and Howard Street.
3. Add high-quality paving and infill planting at the end of Natoma Street for temporary outdoor events/games to make this a potential play street.²⁰
4. Add trees and bollards and/or other lighting for people walking.

STEVENSON STREET: BRADY STREET TO GOUGH STREET

Proposed improvements at Stevenson Street from Brady Street to Gough Street are shown in **Figure 2-16**, p. 2-49, and include the following:

1. Convert this block of Stevenson Street from one-lane, one-way to two-lane, two-way vehicular access. All on-street vehicular parking spaces would be removed to allow for this conversion.
2. Add a raised crosswalk at Gough Street.
3. Add high-quality paving in the roadway.
4. Add trees, bollards, and lighting for people walking.

²⁰ Play streets repurpose street rights-of-way to create large areas of public space for active recreational uses, such as basketball, hopscotch, and other unstructured play activities. Although play streets still accommodate local vehicular traffic, they typically include intense vehicular traffic calming to promote very slow driving speeds and allow people to use the street comfortably.



LEGEND

- | | | | | | |
|---|---------------------|---|----------------------------|---|--|
|  | <i>Sidewalk</i> |  | <i>Special Paving</i> |  | <i>Special Raised Crosswalk Paving</i> |
|  | <i>Street Tree</i> |  | <i>Raised Crosswalk</i> | | |
|  | <i>Street Light</i> |  | <i>Pedestrian Lighting</i> | | |

ICF Graphics ... 0070017 (1-7-2019)

Source: San Francisco Planning Department, 2018.

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Figure 2-15
Lafayette Street: Mission Street to Howard Street



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 2016-014802ENV

Figure 2-16
Stevenson Street, Chase Court, Colton Street, and Brady Street

CHASE COURT: COLUSA PLACE TO DEAD-END

Proposed improvements at Chase Court from Colusa Place to the dead-end are shown in **Figure 2-16**, p. 2-49, and include the following:

1. Convert these dead-end alleys to shared public ways or equivalent to prioritize use for people walking.
2. Pave the alleys with high-quality paving, consistent or harmonious with that used within Brady Park.²¹
3. Remove all on-street vehicular parking spaces to improve access and safety for all users.
4. Add infill trees and lighting for people walking.

COLTON STREET: BRADY STREET TO GOUGH STREET

Proposed improvements at Colton Street from Brady Street to Gough Street are shown in **Figure 2-16**, p. 2-49, and include the following:

1. Convert this block of Colton Street to an alley for only people walking. Maintain garage access for existing use at 38 Gough Street, which has a garage on this block, while still restricting all other vehicular access.
2. Pave this block of Colton Street with materials consistent with those used on Colton Street east of Brady Street as well as those used on Colusa Place and Chase Court.
3. Add infill trees, bollards, and lighting for people walking.

BRADY STREET: COLTON STREET TO OTIS STREET

Proposed improvements at Brady Street from Colton Street to Otis Street are shown in **Figure 2-16**, p. 2-49, and include the following:

1. Add raised crosswalks at Otis Street.
2. Add a raised intersection at Colton Street as a connector between Colton Street and Brady Park.
3. Add infill trees, bollards, and lighting for people walking.
4. Accommodate on-street commercial and passenger loading to help support strict no-loading provisions on Market Street.
5. Maintain Brady Street as a two-way street between Stevenson Street and Otis Street.

²¹ Brady Park would be owned by United Association Local 38 Plumbers and Pipefitters Union and BART and would be developed as a park as part of the development at 1601–1637 Market Street and 53 Colton Street (2015-005848ENV).

PLUM STREET: MISSION STREET TO SOUTH VAN NESS AVENUE

Proposed improvements at Plum Street from Mission Street to South Van Ness Avenue are shown in **Figure 2-17**, and include the following:

1. Add raised crosswalks at the Mission Street and South Van Ness Avenue intersection.
2. Widen sidewalks to match adjacent alignment and provide a consistent amount of space for people walking.
3. Add trees, bollards, and lighting for people walking.

JESSIE STREET: SOUTH FROM MCCOPPIN STREET

Proposed improvements at Jessie Street south from McCoppin Street are shown in **Figure 2-18**, p. 2-53 and include the following:

1. Add trees, bollards, and lighting for people walking, including potential string lighting.
2. Upgrade chain-link fences per the San Francisco Green Landscape Ordinance.²²

STEVENSON STREET: MCCOPPIN STREET TO DUBOCE AVENUE

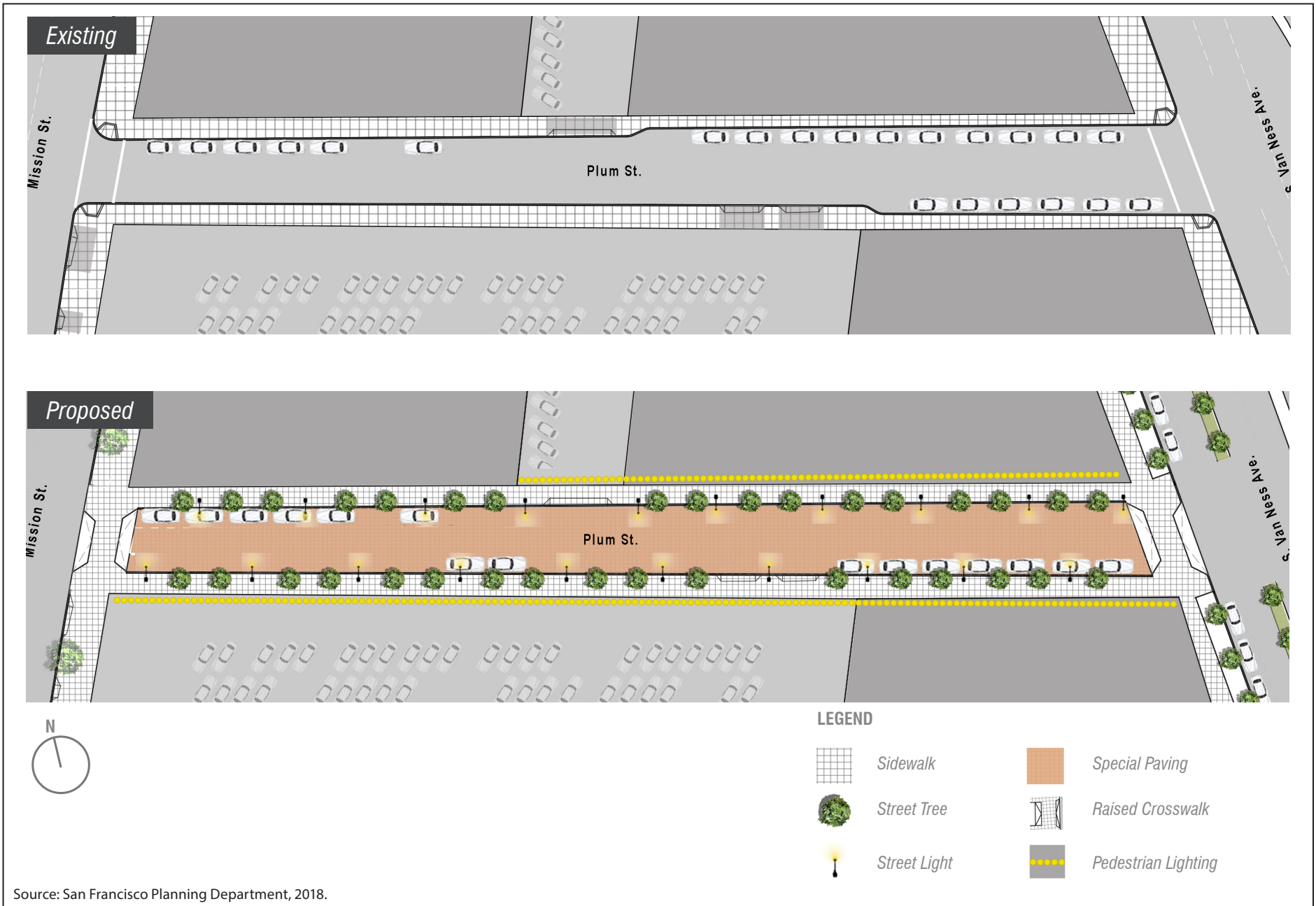
Proposed improvements at Stevenson Street from McCoppin Street to Duboce Avenue are shown in **Figure 2-19**, p. 2-54, and include the following:

1. Add a new bulb-out at Duboce Avenue with public seating, bicycle parking, bollard lights, and raised planters.
2. Add trees, raised planters, and lighting for people walking.

AUXILIARY WATER SUPPLY SYSTEM, STREETLIGHTS, AND PARKING

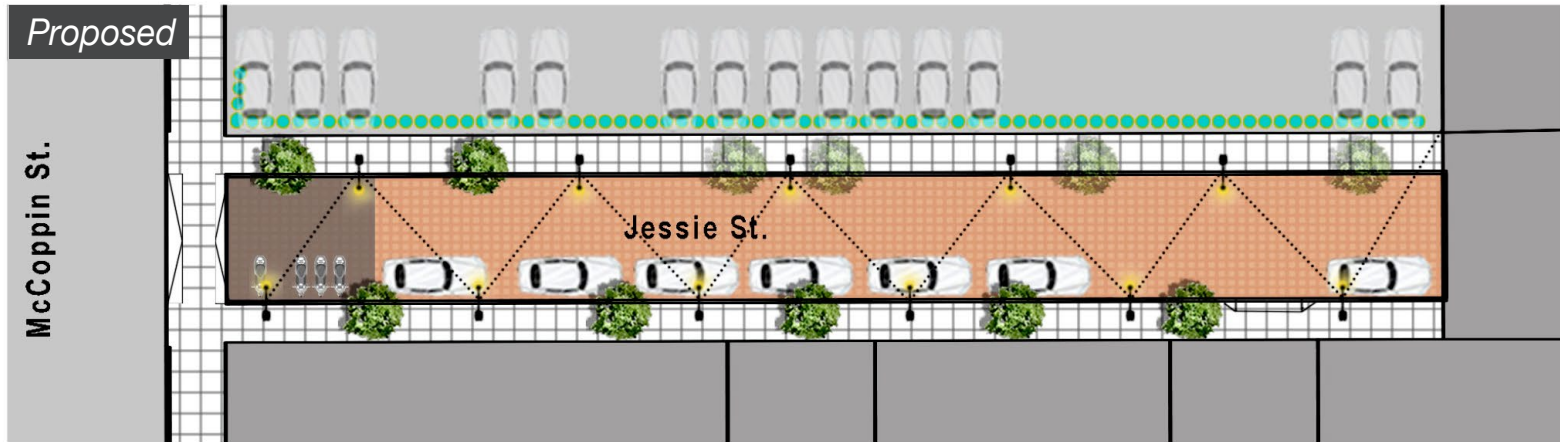
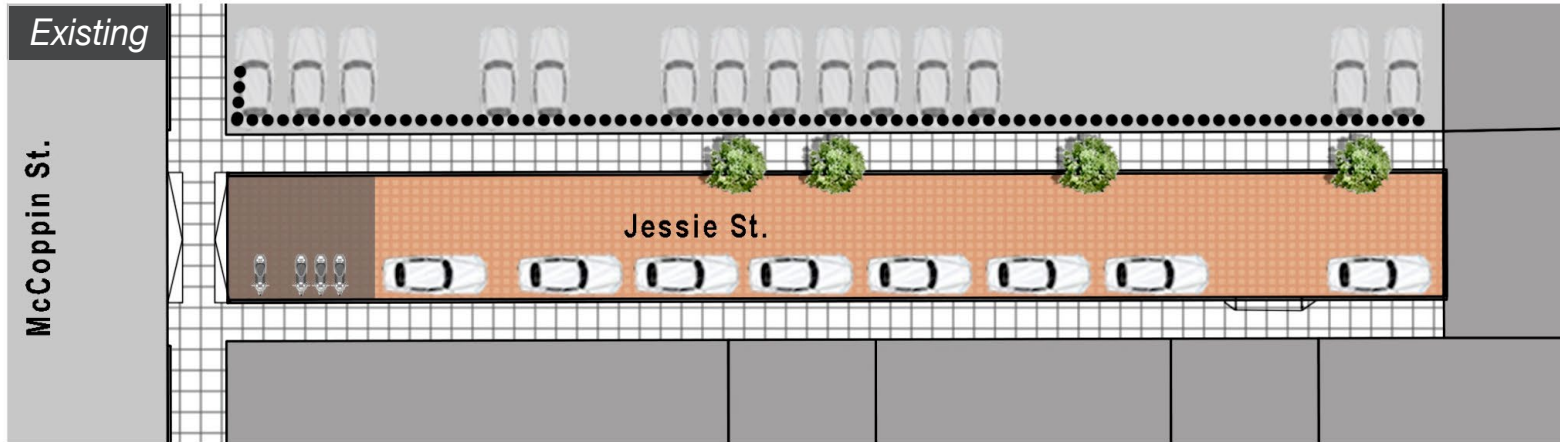
The Hub Plan could result in changes to San Francisco's Auxiliary Water Supply System (AWSS). The AWSS is a discontinuous historic district that extends across San Francisco. Contributing features of this district exist within the streetscape of the Hub Plan area. The high-pressure AWSS fire hydrants, the most ubiquitous features of the system, are found along Market Street, Van Ness Avenue, and Mission Street. In addition, a sub-surface AWSS cistern is found within the Duboce Avenue right-of-way near the intersection at Mission Street, along the southern boundary of the Hub Plan area. Although AWSS hydrants are found where streetscape and street network improvements are proposed as part of the Hub Plan (e.g., at the intersection of Mission Street and South Van Ness Avenue and at Lafayette Street and Mission Street), how the AWSS hydrants would be treated is not known. The hydrants could be moved to new locations or replaced.

²² San Francisco Planning Department, *Guide to the San Francisco Green Landscaping Ordinance*, April 2010, https://www.sf-planning.org/ftp/files/publications_reports/Guide_to_SF_Green_Landscaping_Ordinance.pdfhttp://default.sfplanning.org/Citywide/Market_Octavia/Market_and_Octavia_Area_Plan_2010.pdf, accessed January 2, 2019.



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Figure 2-17
Plum Street: Mission Street to South Van Ness Avenue



LEGEND



Sidewalk



Street Tree



Streetlight



Special Paving



Raised Crosswalk



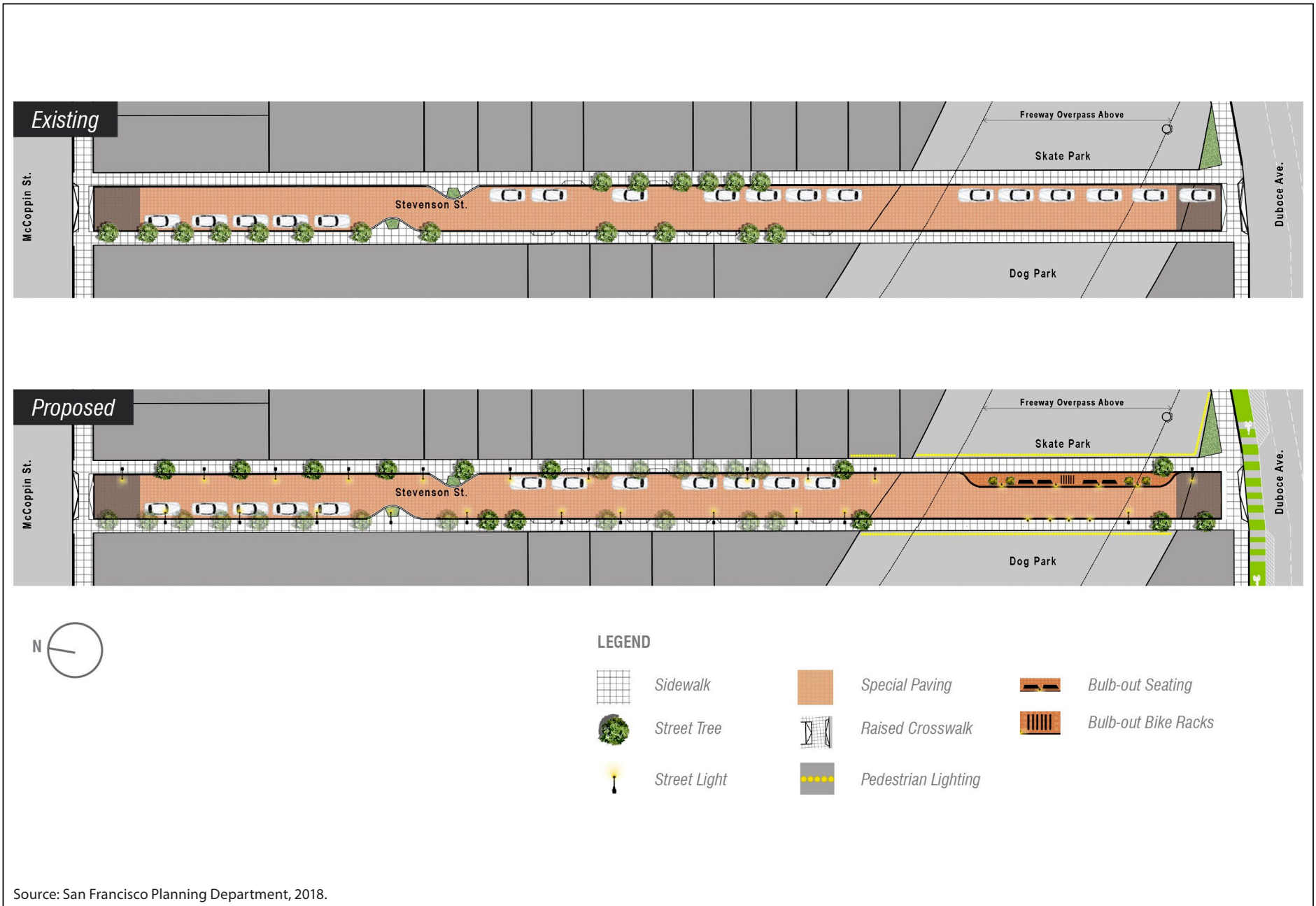
Existing Chain-link Fence



Upgraded Chain-link Fence



String Lighting



ICF Graphics... 0070017 (11-15-2018)

Source: San Francisco Planning Department, 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-19
Stevenson Street: McCoppin Street to Duboce Avenue

In addition to the AWSS, historic-age streetlights are found within the streetscape of the Hub Plan area. These are located in the median on Gough Street; between Market and Otis streets; along South Van Ness Avenue, between Mission and 13th streets; and at the intersection of Minna and Lafayette streets. The streetlights would be either be retained in place or relocated within the city; streetlights within West SoMa would be retained in place or relocated within the same district. Upgrades to the streetlights would be permitted. In addition, the streetscape and street network improvements would result in a net decrease in the number of commercial loading spaces (i.e., eight) and a net increase in the number of passenger loading spaces (i.e., four). The streetscape and street network improvements would also result in the removal of approximately 135 general on-street vehicular parking spaces where streetscape and street network improvements are proposed (i.e., 31 vehicle parking spaces within alleys, 104 vehicle parking spaces on other streets).

E. CHARACTERISTICS OF INDIVIDUAL DEVELOPMENT PROJECTS

The following sections describe the characteristics of the two individual projects: 30 Van Ness Avenue and 98 Franklin Street.

30 VAN NESS AVENUE PROJECT

The proposed project at 30 Van Ness Avenue includes retention of portions of the existing office, retail, restaurant, and parking uses and construction of a 45-story building with ground-floor retail space, 11 floors of office space, and approximately 33 floors of residential space. The project sponsor for the 30 Van Ness Avenue Project is 30 Van Ness Development, LLC. The following describes the proposed project characteristics in detail.

SITE DESIGN AND LAYOUT

The proposed project at 30 Van Ness Avenue would include a 12-story podium, consisting of ground-floor retail and 11 floors of office space (levels 2 through 12). It would also include a residential amenity floor on level 13 and a residential tower with at least 350 but possibly up to 610 residential units on approximately 33 floors (levels 14 through 45), reaching a height of approximately 520 feet, with an additional 20 feet to the top of the rooftop mechanical features, as permitted by the planning code. The building podium would have a trapezoidal shape, with frontages along Market and Fell streets and Van Ness Avenue. The tower would be set back approximately 49 feet from the east face of the podium, 12 feet from the Van Ness Avenue face of the podium, 49 feet from the Fell Street face of the podium, and 85 feet from the Market Street face of the podium and situated at the center of the site. The podium height would be up to a maximum of 171 feet at the roofline. The podium would be 275 feet long by 162 feet wide, while the tower would be 141 feet long by 102 feet wide. In total, the existing structure would be altered

and expanded from its existing envelope of approximately 184,100 square feet to approximately 826,000 square feet, a net increase of 641,900 square feet.

PROPOSED DEVELOPMENT

The proposed development at 30 Van Ness Avenue would total approximately 826,000 square feet, including up to 21,000 square feet of retail, up to 350,000 square feet of general office, and up to 520,000 square feet of residential,²³ as shown in **Table 2-2**. As noted above, the retail uses would be included on the ground floor. The podium (levels 2 through 12) would include the office uses, and the tower (levels 13 through 45) would include residential uses. In addition, the site for the 30 Van Ness Avenue Project would include approximately 76,320 square feet of garage uses for 243 vehicular parking spaces within two below-grade garage levels.

TABLE 2-2. PROPOSED DEVELOPMENT AT 30 VAN NESS AVENUE

	Count	Gross Square Feet
Residential Units (total)	610 ¹	520,000
<i>Studio</i>	229	—
<i>One-Bedroom Units</i>	229	—
<i>Two-Bedroom Units</i>	92	—
<i>Three-Bedroom Units</i>	60	—
Commercial	—	371,000
<i>Retail</i>	—	21,000
<i>Office</i>	—	350,000
Open Space	—	32,580
<i>Privately Owned Public Open Space</i>		3,300
<i>Commonly Accessible Open Space (residential)</i>		29,280

Source: 30 Van Ness Development, LLC, 2018.

¹ Depending on unit size and layout, the project would have at least 350 residential units but could have up to 610 residential units.

The 30 Van Ness Avenue Project would include at least 350 residential units but possibly up to 610 residential units on floors 14 through 45. For purposes of this EIR, the more intensive number, 610 residential units, is evaluated. If 610 units are constructed, it would include the following unit mix: 229 studios (37.5 percent), 229 one-bedroom units (37.5 percent), 92 two-bedroom units (15 percent), and 60 three-bedroom units (10 percent). The 30 Van Ness Avenue Project would provide onsite affordable residential units for a mix of low- to moderate-income households (approximately 25 percent), offsite affordable residential units (approximately 33 percent), or a mix of onsite and offsite affordable residential units. If 610 units are constructed, there would be

²³ Note that 826,000 square feet is the maximum square footage that would be included as part of the project. It does not include the square footage for parking. An increase in office space above 250,000 square feet could result in a small corresponding decrease in the total square footage of residential uses.

approximately 19 residential units and 15,760 square feet of residential uses per floor. The percentages for the types of units (studio, one-bedroom, two-bedroom, and three-bedroom units) and affordable housing units would remain the same, regardless of the ultimate number of residential units constructed (350 to 610 units).

Two basement levels would include vehicle and bicycle parking spaces. The ground floor would include a total of approximately 21,000 square feet of retail space, including approximately 6,000 square feet of retail space and approximately 15,000 square feet of restaurant space. The ground floor would also include a lobby or vestibule for the office podium, a lobby for the residential tower, a bicycle storage area, and a loading dock. Levels 2 through 12 of the podium would include approximately 350,000 square feet of general office uses, with approximately 31,820 square feet of office uses per floor.

Level 13, the first floor of the residential tower, would include open space in the form of a podium roof deck. **Figure 2-20** shows the existing site plan. **Figures 2-21 to 2-26**, pp. 2-59 to 2-64, show the proposed development on basement levels 1 and 2, the ground-floor level, levels 2 through 8, and levels 9 through 12 as well as a typical residential plan. **Figures 2-27 and 2-28**, pp. 2-65 and 2-66, show the proposed building elevations from the north and west.

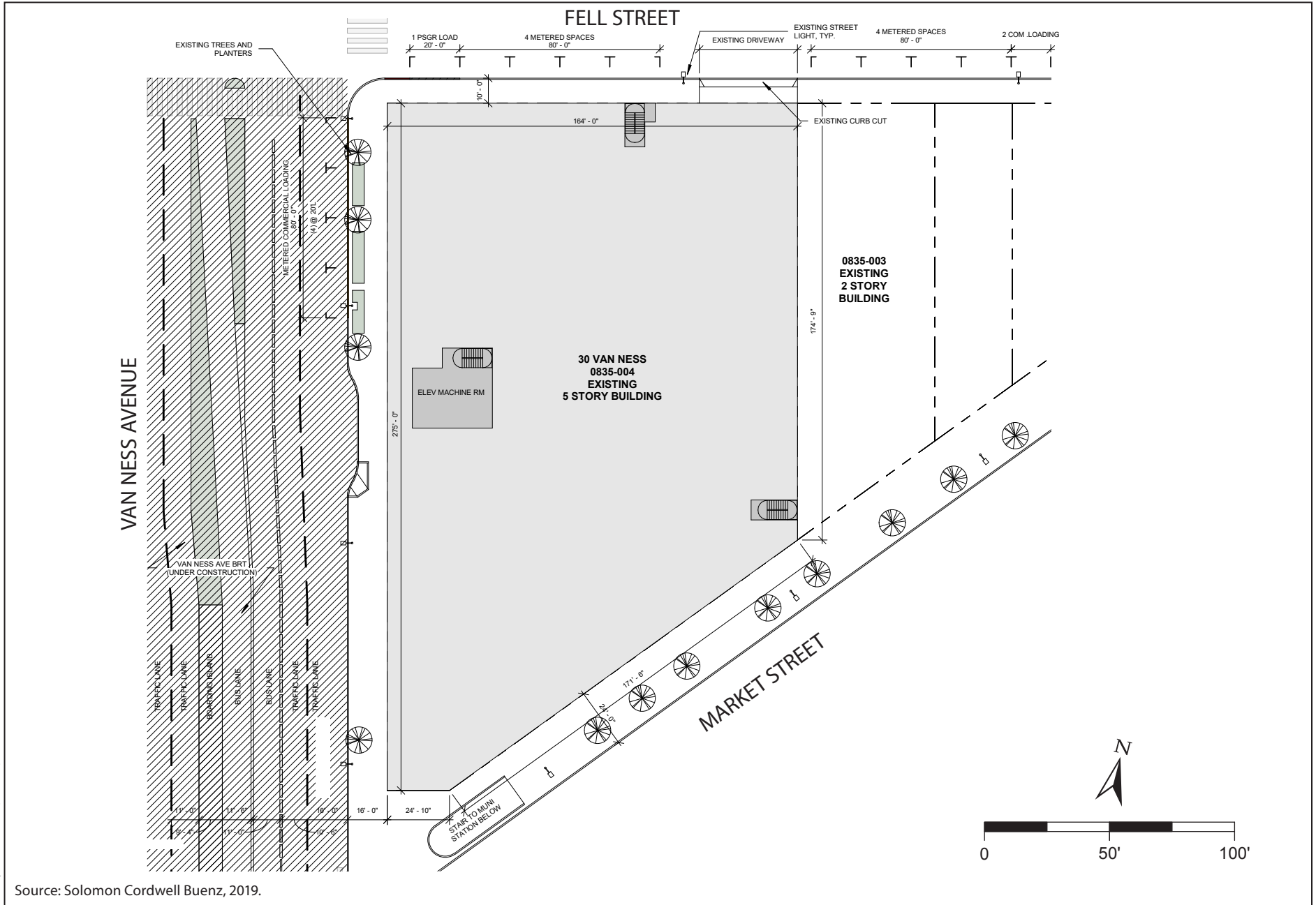
Lighting and signage for 30 Van Ness Avenue would be in compliance with City code. Additional street lighting would be installed along Fell Street. The building is anticipated to include standard security infrastructure and a staff to perform security functions for both residential and office uses. There would be approximately 1,520 employees at the project site during operation.

PROPOSED OPEN SPACE

The proposed project at 30 Van Ness Avenue would provide approximately 3,300 square feet of privately owned public open space on the ground floor. It would also provide approximately 29,280 square feet of commonly accessible open space for the office and for residents.²⁴ None of the proposed open space areas would include permanent sound amplification systems. Any noise at outdoor open space areas would be limited in order to not be in excess of noise ordinance requirements.

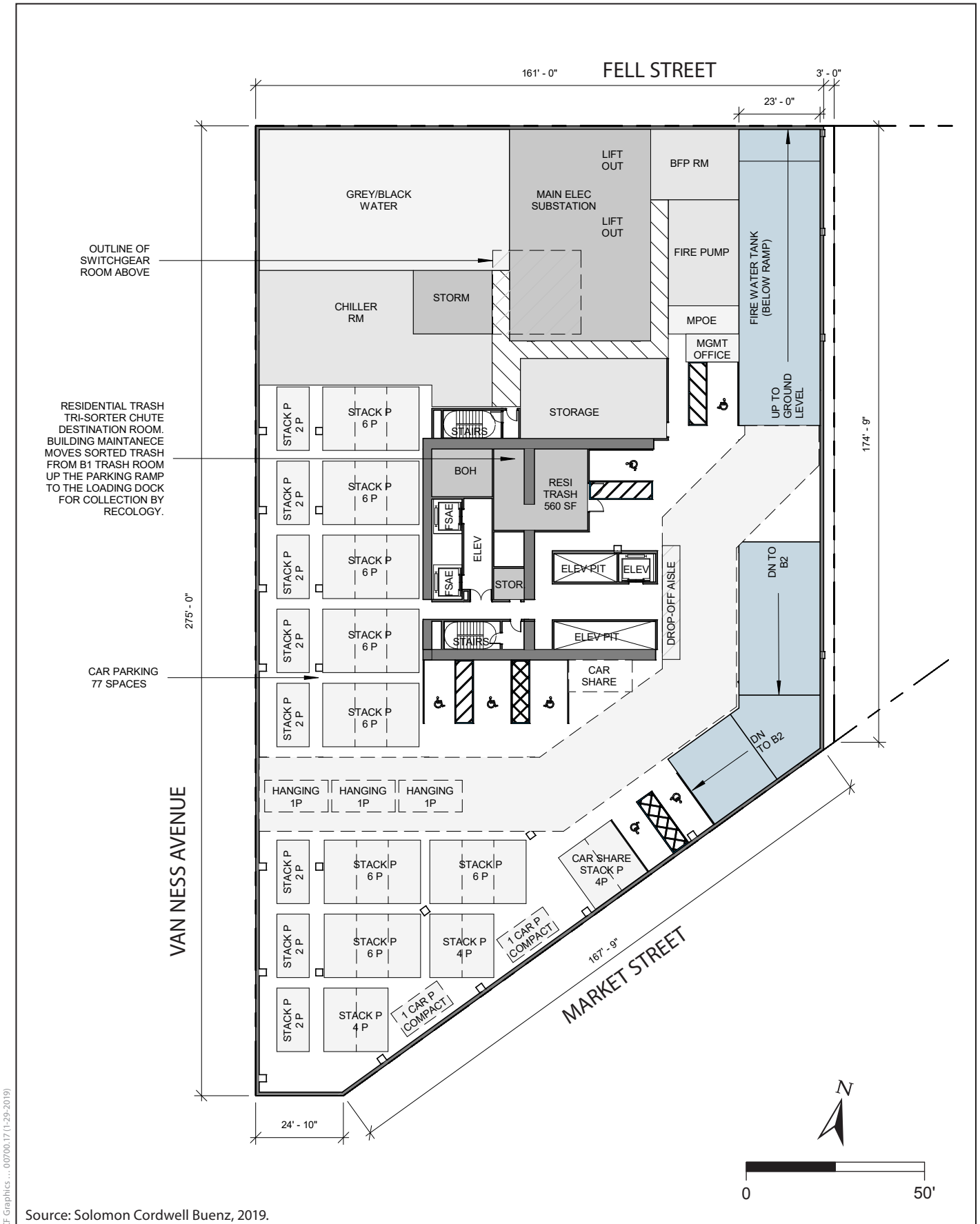
Construction may result in removal and replacement of up to nine existing trees along Van Ness Avenue and Market Street. New street trees would be planted as appropriate in accordance with the Better Streets Plan, which may result in a total of up to 17 trees along Van Ness Avenue and Market Street. Any proposed new, removed, or relocated street trees and/or landscaping within the public sidewalk may require a permit from San Francisco Public Works, Bureau of Urban

²⁴ Based on a project with 610 residential units.



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 2-20
30 Van Ness Avenue Project – Existing Site Plan



ICF Graphics... 00700117 (1-29-2019)

Source: Solomon Cordwell Buenz, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-21
30 Van Ness Avenue Project –
Proposed Basement Level 1 Plan

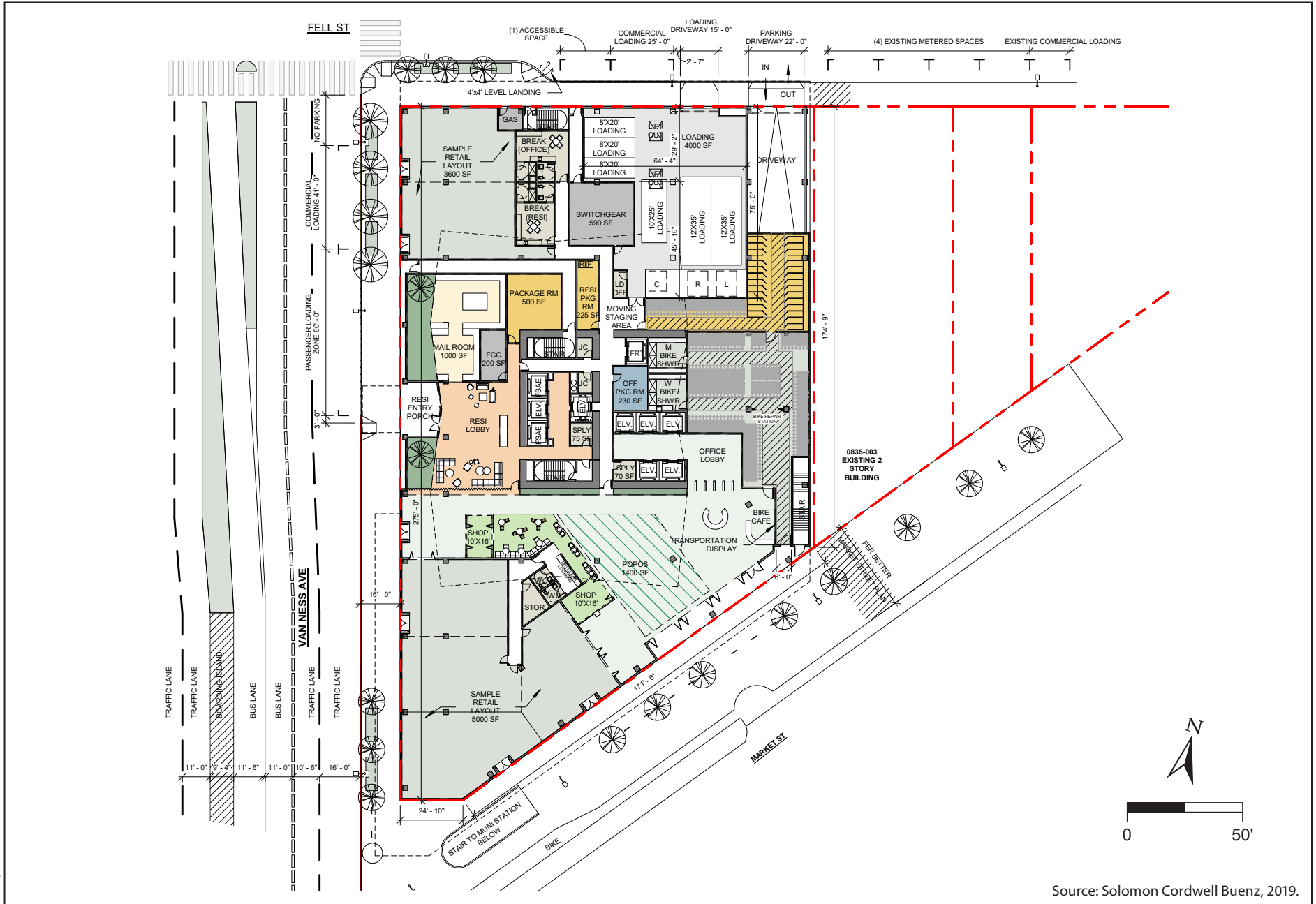


ICF Graphics... 00700117 (1-29-2019)

Source: Solomon Cordwell Buenz, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
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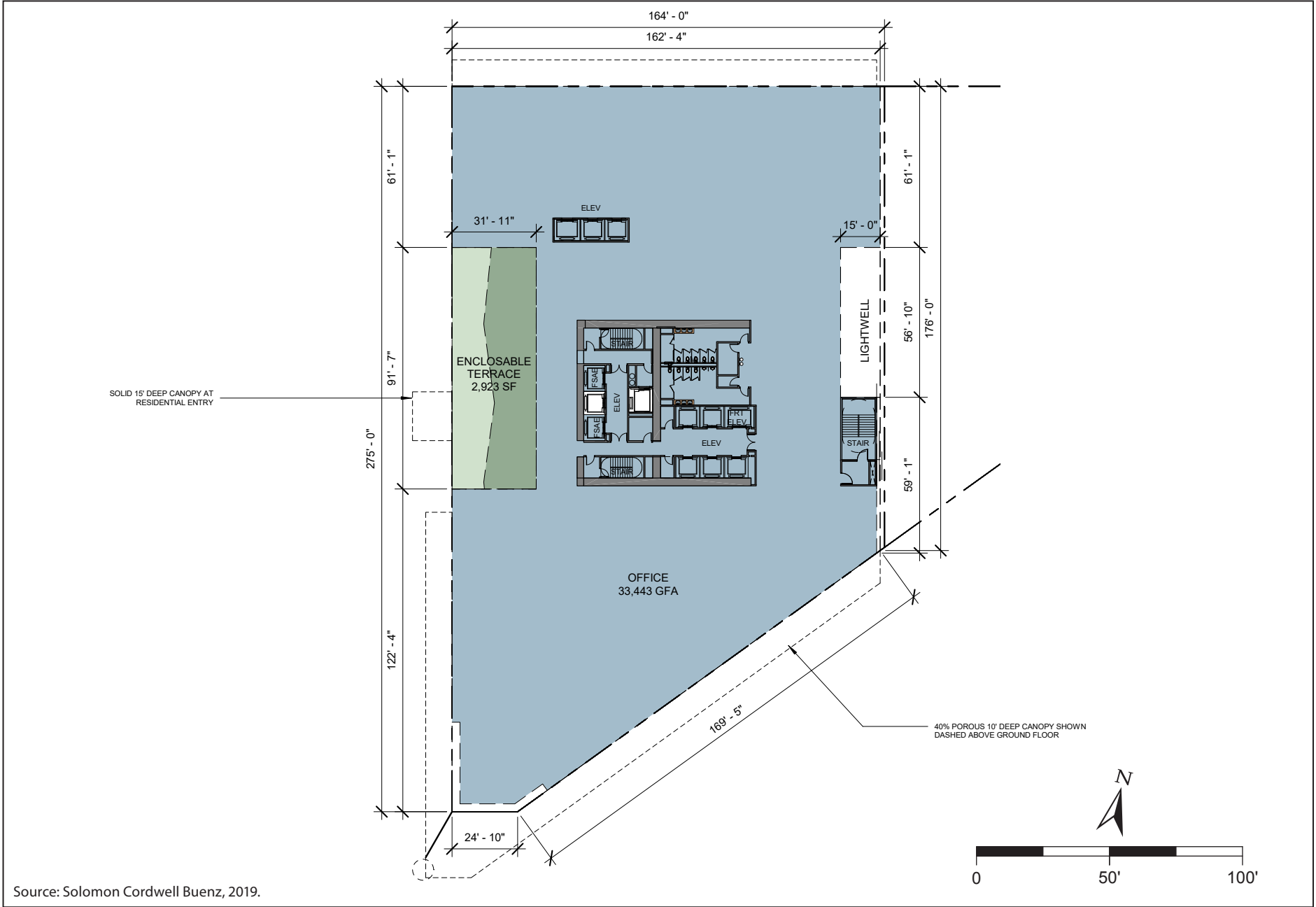
Figure 2-22
30 Van Ness Avenue Project –
Proposed Basement Level 2 Plan



Source: Solomon Cordwell Buenz, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

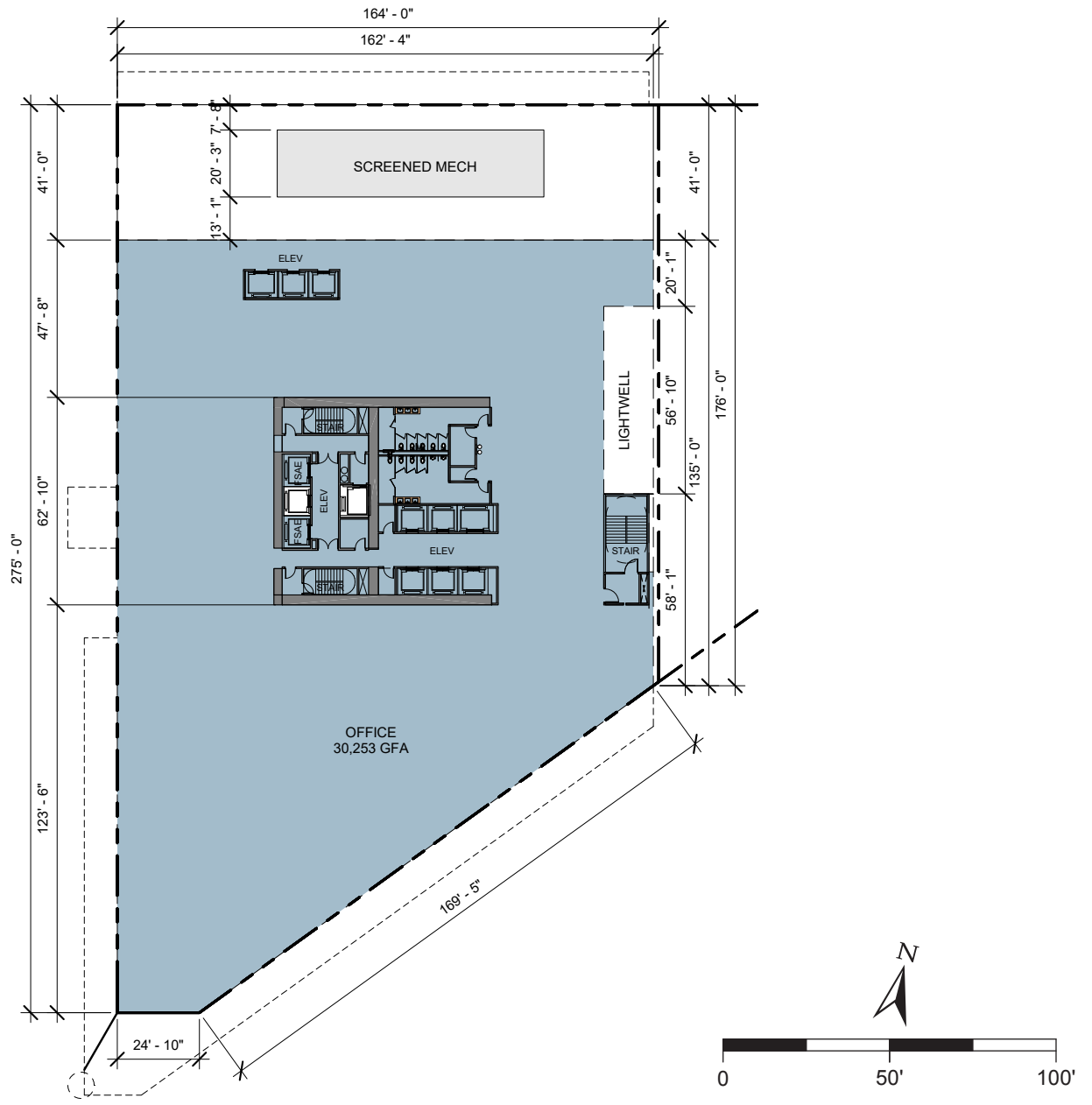
Figure 2-23
30 Van Ness Avenue Project –
Proposed Ground Floor Plan



Source: Solomon Cordwell Buenz, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-24
30 Van Ness Avenue Project –
Proposed Levels 2–8 Plan



ICF Graphics ... 0070017 (6-3-2019)

Source: Solomon Cordwell Buenz, 2019.

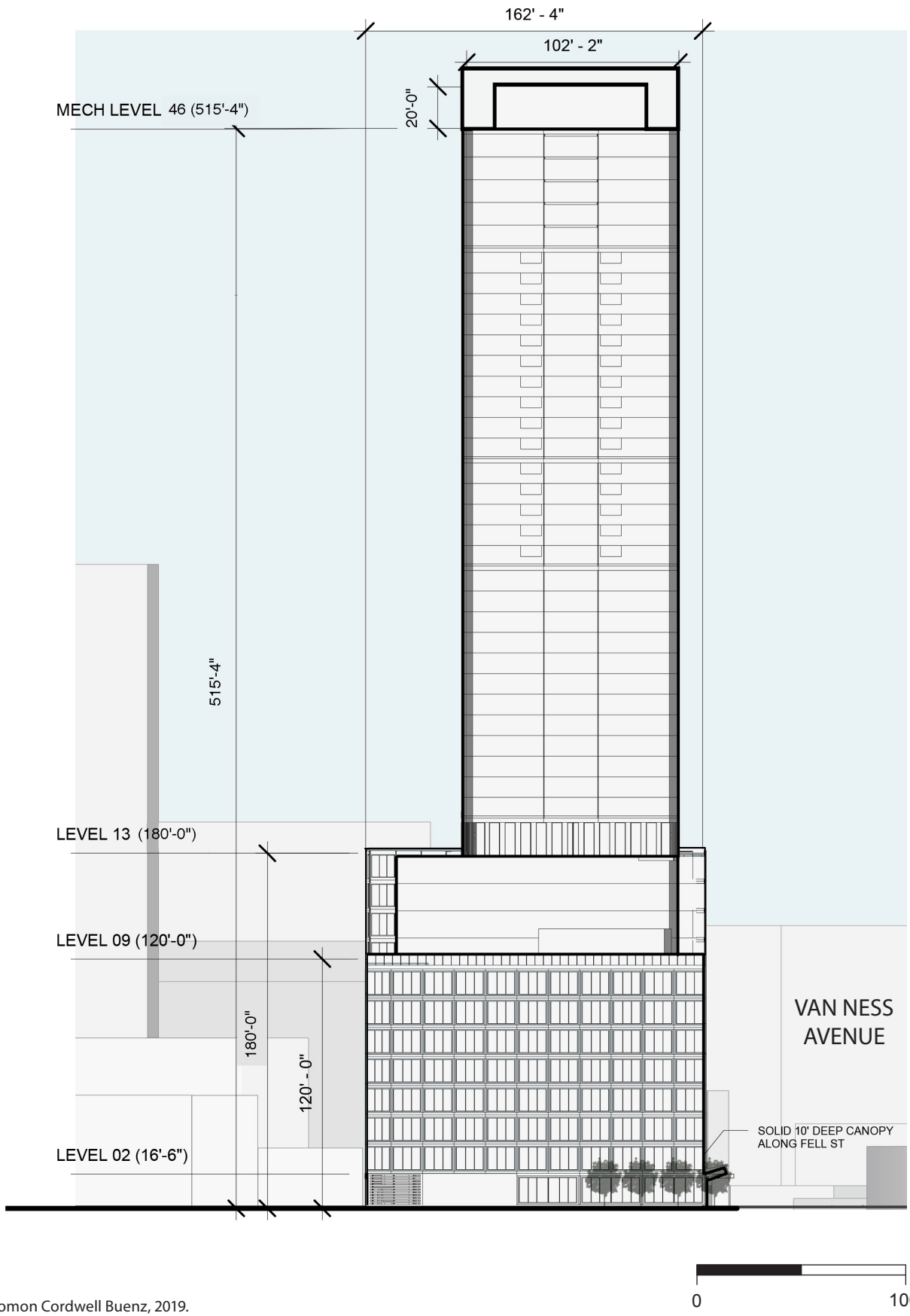
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-25
30 Van Ness Avenue Project –
Proposed Level 9–12 Plan



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-26
30 Van Ness Avenue Project –
Proposed Floor Plan Typical of Floor 14 through 47

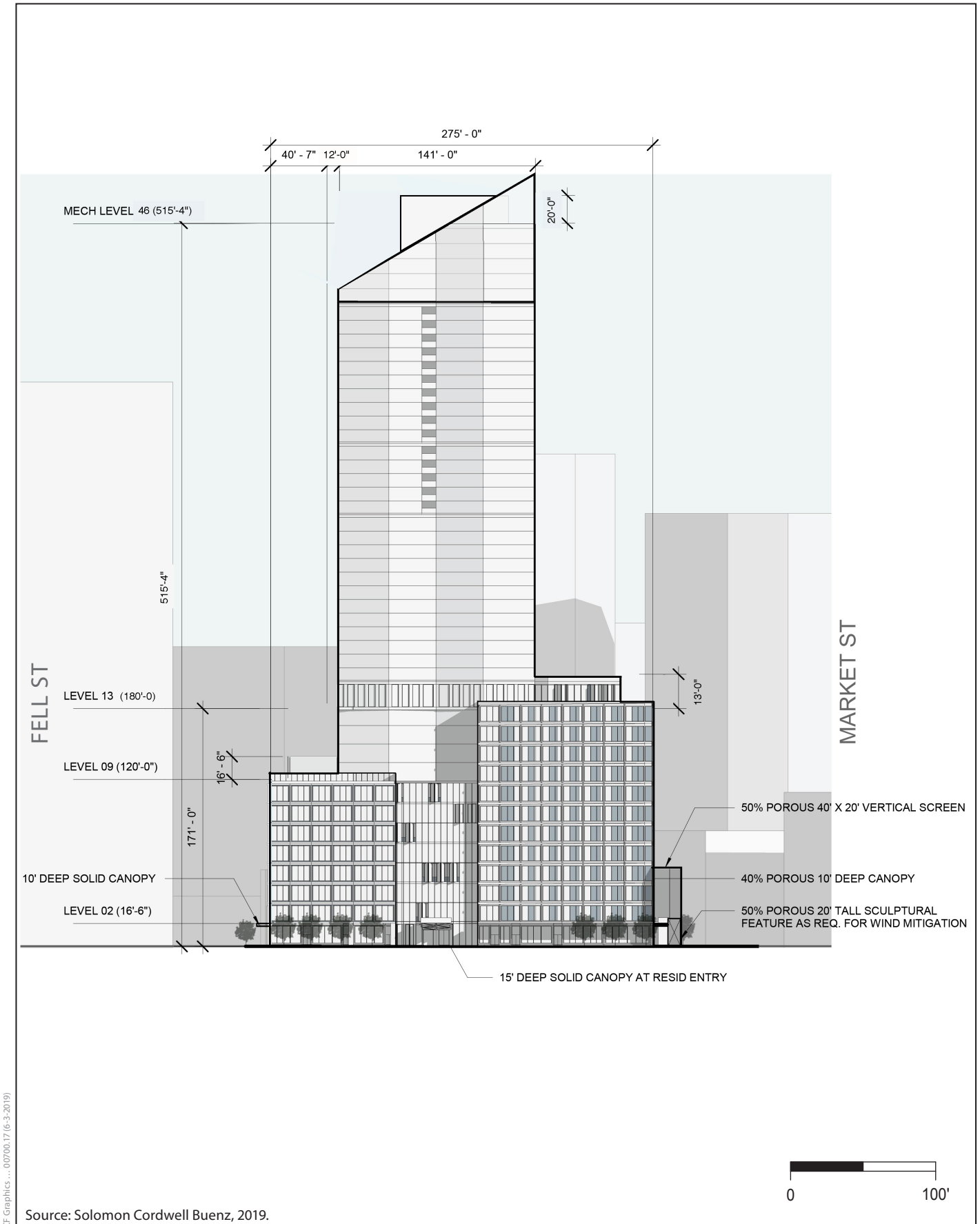


Source: Solomon Cordwell Buenz, 2019.

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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-27
30 Van Ness Avenue Project –
Proposed North Elevation



ICF Graphics...00700117 (6-3-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-28
30 Van Ness Avenue Project –
Proposed West Elevation

Forestry. In addition, the sponsor would coordinate sidewalk improvements in accordance with streetscape and right-of-way improvements planned as part of the Better Market Street Plan, which proposes sidewalk widening along the project's frontage on Market Street and a bulb-out at the northeast corner of Market Street and Van Ness Avenue. Canopies to reduce wind impacts are also proposed along the north, south, and west sides of the building.

PROPOSED PARKING AND CIRCULATION

ACCESS AND CIRCULATION FOR VEHICLES, BICYCLES, AND PEOPLE WALKING

The site for the 30 Van Ness Avenue Project would be accessible from Market Street, Van Ness Avenue, and Fell Street, as shown in **Figure 2-23**, p. 2-61. Vehicular access to the parking garage would be via a 22-foot driveway on Fell Street. People bicycling would be able to access bicycle parking via ground-floor entries on Van Ness Avenue or Market Street.

Access for people walking to the interior of the building, including the residential uses, offices, lobbies, and retail spaces, would be provided by building entrances situated on Van Ness Avenue and on Market Street. Access to the upper residential floors would be provided by an elevator and stairway located adjacent to the residential lobby entrance.

Commercial (freight and delivery service) loading demand for the building would include residential move-in/move-out vehicles; office vehicles; garbage, compost, and recycling pickup vehicles; and delivery vehicles for residents, offices, and the required active retail space at the ground floor. As shown in **Figure 2-23**, p. 2-61, commercial and passenger loading would occur within the proposed 107-foot on-street loading zone along the project frontage on Van Ness Avenue, in front of the residential lobby and retail entrance, and the 25-foot on-street loading zone along the project frontage on Fell Street. There would also be a loading dock, which would be accessed from Fell Street, with three off-street freight loading spaces (two 12- by 35-foot spaces and one 10- by 25-foot space), three off-street service loading spaces (8 by 20 feet), and a 15-foot curb cut/driveway for larger deliveries, moving trucks, and garbage, compost, and recycling pickup vehicles. The proposed on-street commercial spaces and passenger loading zones would require approval from MTA at a public hearing. A preliminary review of the proposed design and changes to on-street curb regulations by the department's Street Design Advisory Team, which included members of the MTA Color Curb Program, did not identify any concerns with the proposed zones and confirmed that the proposed on-street curb regulations would be consistent with MTA policy.

VEHICULAR AND BICYCLE PARKING

The vehicular and bicycle parking proposed as part of the 30 Van Ness Avenue Project is summarized in **Table 2-3**. On-street vehicular parking and loading spaces currently exist at the project site on Van Ness Avenue and Fell Street. An existing on-street blue curb/Americans with

TABLE 2-3. PROPOSED VEHICULAR, LOADING, AND BICYCLE PARKING AT 30 VAN NESS AVENUE

	Number of Parking Spaces
Vehicular Off-Street Parking Spaces (total) ¹	243 ²
<i>ADA</i>	7
<i>Electric-Vehicle Charging and Electric-Vehicle-Ready Spaces</i>	25
<i>Mechanical Stackers</i>	211
<i>Car-Share Spaces</i>	5
Off-Street Freight Loading Spaces	3
Off-Street Service Loading Spaces	3
Bicycle Parking Spaces (total)	349
<i>Class 1 Spaces</i>	301
<i>Class 2 Spaces</i>	48

Source: 30 Van Ness Development, LLC, 2018.

¹ The project sponsor would seek a zoning change that would allow a mixed-use project in the Hub Plan area and provide at least 25% onsite (or 33% offsite) affordable housing to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would total 7% of the occupied floor area. The total number of vehicular parking spaces would be approximately 243.

² Total number of vehicular parking spaces does not add up to 243 because the subsets of the 243 vehicular parking spaces overlap with each other. For example, some of the car-share spaces are proposed as mechanical stackers.

Disabilities Act–compliant vehicular parking space would be relocated from Van Ness Avenue to Fell Street. Within the two basement levels, 30 Van Ness Development, LLC, proposes a total of up to 243 vehicular parking spaces.²⁵ These would include seven Americans with Disabilities Act–compliant spaces, five electric-vehicle charging spaces, and 20 electric-vehicle-ready spaces.²⁶ In addition, the project would include an additional five car-share spaces. It is anticipated that vehicular parking would be provided by mechanical stackers. The project sponsor would seek a zoning change that would allow a mixed-use project in the Hub Plan area and provide affordable housing (i.e., at least 25 percent onsite or 33 percent offsite) to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would total 7 percent of the occupied floor area. Also, the subterranean garage would include a gate that would open and shut, providing full enclosure. Visual and audible signals would alert passing people walking and bicycling of an approaching exiting vehicle from both the vehicular parking driveway and the loading driveway.

²⁵ Based on a project with 610 residential units.

²⁶ Electric-vehicle-ready spaces are parking spaces equipped with an electrical raceway, wiring, and electrical circuit for future use as electric-vehicle charging spaces.

The project would also include 301 *class 1* bicycle parking spaces and 48 *class 2* bicycle parking spaces.²⁷ Of the 301 *class 1* bicycle parking spaces, 228 spaces would be associated with the residential units,²⁸ 70 spaces would be associated with the office uses, and three spaces would be associated with the retail uses. Of the 48 *class 2* bicycle parking spaces, 31 spaces would be associated with the residential units, nine spaces would be associated with the office uses, and eight spaces would be associated with the retail uses. The *class 1* bicycle parking spaces would be located in the basement levels and ground floor and would meet planning code requirements on specific locations and routes of travel.

CONSTRUCTION

Construction of the proposed project at 30 Van Ness Avenue would be completed in a single phase, commencing in 2020 and lasting approximately 44 months. Construction would occur in several overlapping stages: (1) demolition of portions of the building, (2) excavation and shoring, (3) foundation and below-grade construction, (4) base buildings, (5) exterior and interior finishing, and (6) sidewalks and landscaping. The proposed project would construct a conventional type 1 structure.²⁹ Steel soldier piles would be driven over approximately two to three months to the perimeter of the site for the 30 Van Ness Avenue Project as part of the temporary shoring system. If required, deep auger cast piles would be installed in the BART zone of influence³⁰ over four to six months, supporting a concrete mat foundation. The proposed project would be a conventional concrete structure. The vehicular parking lanes and sidewalks on Fell Street and, at a minimum, the northern portion of Van Ness Avenue adjacent to the project site would be temporarily closed during construction. During construction, the project would reroute people walking on the project sides of Fell Street and Van Ness Avenue to the opposite sides of each respective street. The Market Street sidewalk and Muni access would remain open with overhead protection and barricades for people walking to provide a safe environment. The Market Street sidewalk would be reduced to approximately 15 feet wide during the demolition and construction phases.

Typical construction equipment that would be used at the project site would include loaders, dump trucks, bulldozers, backhoes, scrapers, water trucks, trenchers, cranes, drills, forklifts, concrete trucks, welders, air compressors, hi-lift forklifts, pile hammers, rollers, pavers, temporary

²⁷ Section 155.1(a) of the planning code defines *class 1* bicycle spaces as “spaces in secure, weather-protected facilities intended for use as long-term, overnight, and workday bicycle storage by dwelling unit residents, nonresidential occupants, and employees” and defines *class 2* bicycle spaces as “spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use.”

²⁸ Based on a 610 residential unit program.

²⁹ Type 1 structures are constructed of concrete and protected steel (steel coated with a fire-resistant material, most often a concrete mixture) and designed to hold fire for an extended amount of time to prevent it from spreading.

³⁰ The BART zone of influence is defined as the area above a line of influence, which is a line from the critical point of BART structures at a slope of 1.5 horizontal to 1 vertical (a line sloping toward ground level).

generators, and berm machines. Construction equipment would be staged along Fell Street and Van Ness Avenue. A tower crane would be located either within the property line or within the closed sidewalk zone. Construction materials would be loaded and off-loaded in the closed vehicular parking lane on Fell Street or the northern portion of Van Ness Avenue at Fell Street, adjacent to the property. Materials would be scheduled to arrive when required in the construction sequence. All impact equipment used for project construction would be equipped with the appropriate noise control features, as required by the noise ordinance.

The approximate average number of construction workers onsite by shift would be 120, with a maximum of 250 workers during the exterior and interior finishing construction phase. Construction shifts would typically occur from 7 a.m. to 7 p.m. Monday through Saturday. In accordance with the City noise ordinance, project construction would generally not occur between the hours of 8 p.m. and 7 a.m. Activities that would result in no detectable noise at adjacent land uses, such as interior painting, would not be limited to these hours. There may be some situations where construction would need to extend beyond normal hours, such as the concrete foundation pour. However, any such exceptional condition would be subject to normal review, permitting, and approval through the Department of Building Inspection (for private property) or the San Francisco Public Works (for public rights-of-way). Examples of construction activities that may extend beyond normal hours include concrete pours, crane and hoist erection and adjustment activities, site maintenance activities, and materials delivery and handling. The mode of access for construction workers would be primarily public transit due to the site's proximity to several transit stops, although some workers could drive and park at on-street vehicular parking spaces or nearby vehicular parking garages. No dedicated vehicular parking for construction workers would be provided.

The estimated amount of excavation at the project site is 51,000 cubic yards for the foundations and basement levels, which would require excavation to a depth of approximately 48 feet below grade, all of which would be exported from the site. To accommodate this, the project would require 26 trucks onsite on average per shift per day, or 10 cubic yards per truck at 85 loads per day for eight hours per day (estimated 60 off-haul working days). Deliveries of materials during the construction phase would vary, with an anticipated average of 16 trucks per day and a peak of 50 per day, sequenced to meet construction demands.

The proposed truck route would have trucks arriving from U.S. 101 traveling north along Mission Street onto South Van Ness Avenue and arriving at the west side of the project site. The proposed off-haul route would have the trucks turn right onto Fell Street and then proceed south along 10th Street to reach the U.S. 101 onramp at the corner of Bryant and 10th streets.

The location for the disposal of spoils is yet to be determined. Clean materials may be reused, but otherwise potential destinations include the Potrero Hill Landfill, Altamont Landfill, Dumbarton Quarry, or Brisbane Baylands.

All local, state, and federal laws with respect to trucking, construction waste and spoils disposal, and dust control would be followed. Specifications would be included for dust control and spillage.

UTILITIES

The proposed project at 30 Van Ness Avenue would include all new utilities, including electrical, gas, water, fire, and sanitary sewer. No utility infrastructure upgrades, including for stormwater, are anticipated.

The San Francisco Public Utilities Commission (SFPUC) would provide electric service to the proposed project at 30 Van Ness Avenue. The SFPUC uses Pacific Gas & Electric Company's (PG&E) distribution facilities and currently designs and constructs facilities in accordance with PG&E standards. The SFPUC would serve the proposed project with a single 12-kilovolt line located in a utility trench.

The SFPUC owns and operates the existing potable water infrastructure that serves the project site. Potable water is currently delivered to the project vicinity by an 8-inch main beneath Fell Street. As part of the proposed development, new connections are proposed, most likely to the existing 8-inch main beneath Fell Street. The project may also include the installation of an onsite system of 12-inch high-pressure water pipes to connect to the City's existing Auxiliary Water Supply System or an alternative solution, as coordinated with the SFPUC.

The project would be designed with a range of standard and best practices for recycling, compost, and waste management and in compliance with applicable codes.

The proposed project at 30 Van Ness Avenue would reduce the amount of impervious (hardscape) surfaces on the site by removing the existing impervious surfaces and adding approximately 1,000 to 2,000 square feet of permeable surfaces, such as grass, gravel, and permeable pavers. The proposed project would comply with City stormwater management and nonpotable water ordinances, most likely through some combination of (but not limited to) bioretention flow-through planters on the podium level, and a rainwater harvesting cistern.

The proposed project at 30 Van Ness Avenue would include two emergency generators to supply electricity to the building and facilities during a power outage; the generators would be located on level 9, on top of a 120 foot podium.³¹ Based on standards established by the Bay Area Air Quality Management District, the generators would be a diesel 1,500-horsepower unit, operating to a maximum of 40 hours per year of non-emergency testing each.

³¹ For purposes of the air quality analysis, emergency generators were modeled conservatively, assuming a location with a podium height of 120 feet.

The goal for the overall development of a sustainable design at 30 Van Ness Avenue includes compliance with Leadership in Energy and Environmental Design (LEED) standards for all commercial and residential development onsite, as outlined in the San Francisco Green Building Code and other City codes. In compliance with City and state requirements, the building is anticipated to include five electric-vehicle charging spaces in the garage as well as 20 electric-vehicle-ready spaces. Furthermore, the proposed project would meet all City requirements, including compliance with GreenPoint or LEED Gold standards. The building envelope as well as the heating, ventilation, and air-conditioning systems would be designed and optimized together to improve energy efficiency, thermal comfort, and natural lighting.

98 FRANKLIN STREET PROJECT

The proposed project at 98 Franklin Street includes demolition of the existing surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would serve as the new high school for International High School (grades 9 through 12 of FAIS). The project sponsor for the 98 Franklin Street Project is a partnership between Related California and the FAIS. The following sections describe the characteristics of the proposed project in detail.

SITE DESIGN AND LAYOUT

The proposed project at 98 Franklin Street would include a residential tower above a school podium building with a proposed height of up to 365 feet. The L-shaped building would have frontages along Franklin, Oak, and Market streets. The podium (floors 1 through 5) would be constructed to the lot lines, while the tower (floors 6 through 36) would be set back about 0 to 10 feet from Franklin Street, about 0 to 10 feet from Oak Street, and about 150 feet from Market Street. The tower would be situated in the northwest portion of the site. The podium would be approximately 68 feet tall at the roofline. The 31-story tower would extend up to approximately 365 feet in height to the roofline. A parapet would extend an additional 20 feet above the roofline, as permitted by the planning code. The podium would be approximately 142 feet long by 125 feet wide, while the tower would be approximately 130 feet long by 110 feet wide.

PROPOSED DEVELOPMENT

As summarized in **Table 2-4**, development at 98 Franklin Street would total approximately 510,000 square feet, including a mix of approximately 384,100 square feet of market-rate and affordable residential uses, approximately 3,100 square feet of retail uses, and approximately 81,000 square feet of school uses. In addition, the site for the 98 Franklin Street Project would include approximately 41,800 square feet of new garage uses (i.e., 111 vehicular parking spaces) within one below-grade level containing bicycle parking, loading, and other building services and two below-grade garage levels containing vehicular parking. The development

TABLE 2-4. PROPOSED DEVELOPMENT AT 98 FRANKLIN STREET

	Count	Gross Square Feet
Residential Units (total)	345	384,100
<i>Studio</i>	172	—
<i>One-Bedroom Units</i>	86	—
<i>Two-Bedroom Units</i>	54	—
<i>Three-Bedroom Units</i>	33	—
Retail	—	3,100
School	36 classrooms	81,000
Garage Parking (Vehicular)	111 spaces	41,800
Open Space		33,940
<i>Commonly Accessible Open Space (Residential/ Not Publicly Accessible)</i>	—	22,400
<i>Private Open Space (School)</i>	—	11,530
<i>Privately Owned Public Open Space</i>	—	0

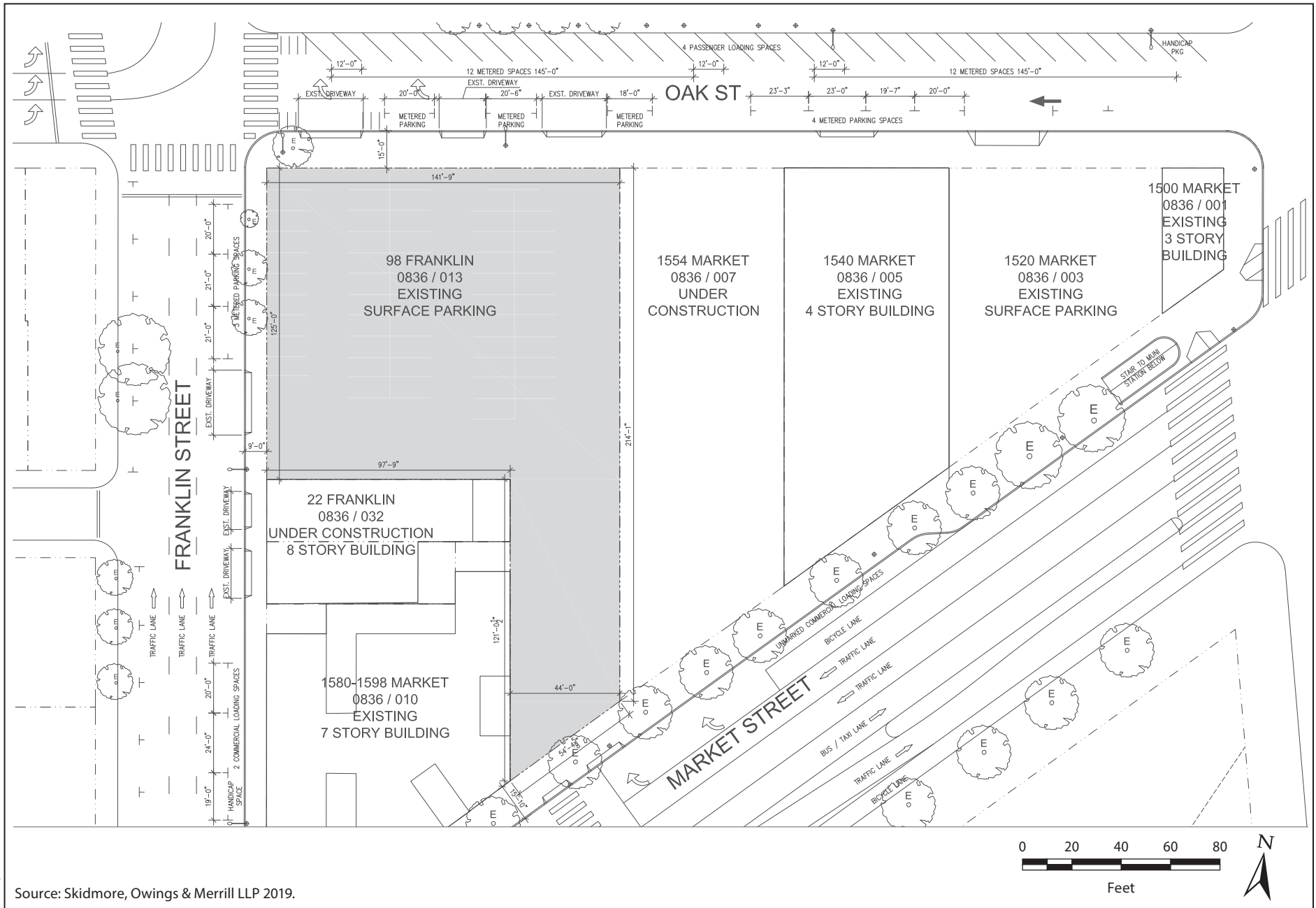
Source: Skidmore, Owings & Merrill 2018.

at 98 Franklin Street would accommodate the approximately 380 existing students who would be relocated from the FAIS's 150 Oak Street site; when completed, the development would accommodate up to 440 students at the site for the 98 Franklin Street Project. The approximately 81,000 square feet of new school space would be located within the building podium and occupied by new facilities for the International High School (grades 9 through 12 of the FAIS). The 98 Franklin Street Project would also result in the addition of up to five staff members, for a total of 65 staff members at the high school at the project site.

The 98 Franklin Street Project would also include 345 apartment units with the following unit mix: 172 studios (50 percent), 86 one-bedroom units (25 percent), 54 two-bedroom units (15 percent), and 33 three-bedroom units (10 percent). Eighteen percent of the residential units would be affordable units.

The 98 Franklin Street Project would include retail space for a restaurant (e.g., café) on the ground floor. The podium would include a private two-story indoor open space for residential and school uses, a residential lobby, and a multi-purpose assembly room on the ground floor. The podium would also include administration offices and a student center on level 2. The upper levels of the podium would include a library, private outdoor open spaces for school uses, a roof terrace for school uses, offices for faculty and administration, and classrooms.

The residential tower would include a mix of residential unit sizes. **Figure 2-29** shows the existing site plan. **Figures 2-30 to 2-36**, pp. 2-75 to 2-81, show the proposed development on the basement levels, ground-floor level, level 2, level 3, lower tower, and upper tower. **Figure 2-37**, p. 2-82, show the proposed west/north elevations.



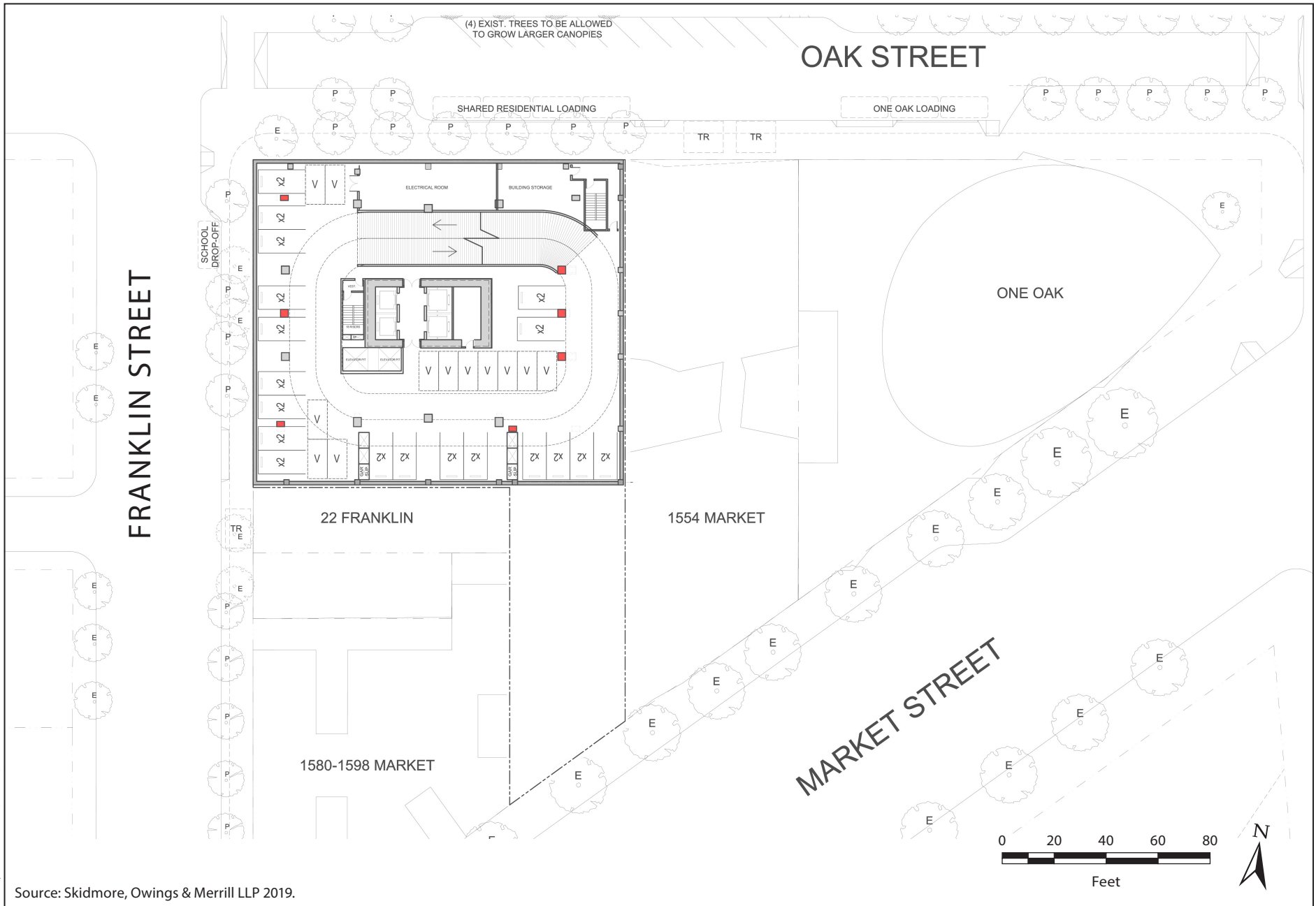
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-29
98 Franklin Street Project –
Existing Site Plan



Source: Skidmore, Owings & Merrill LLP 2019.

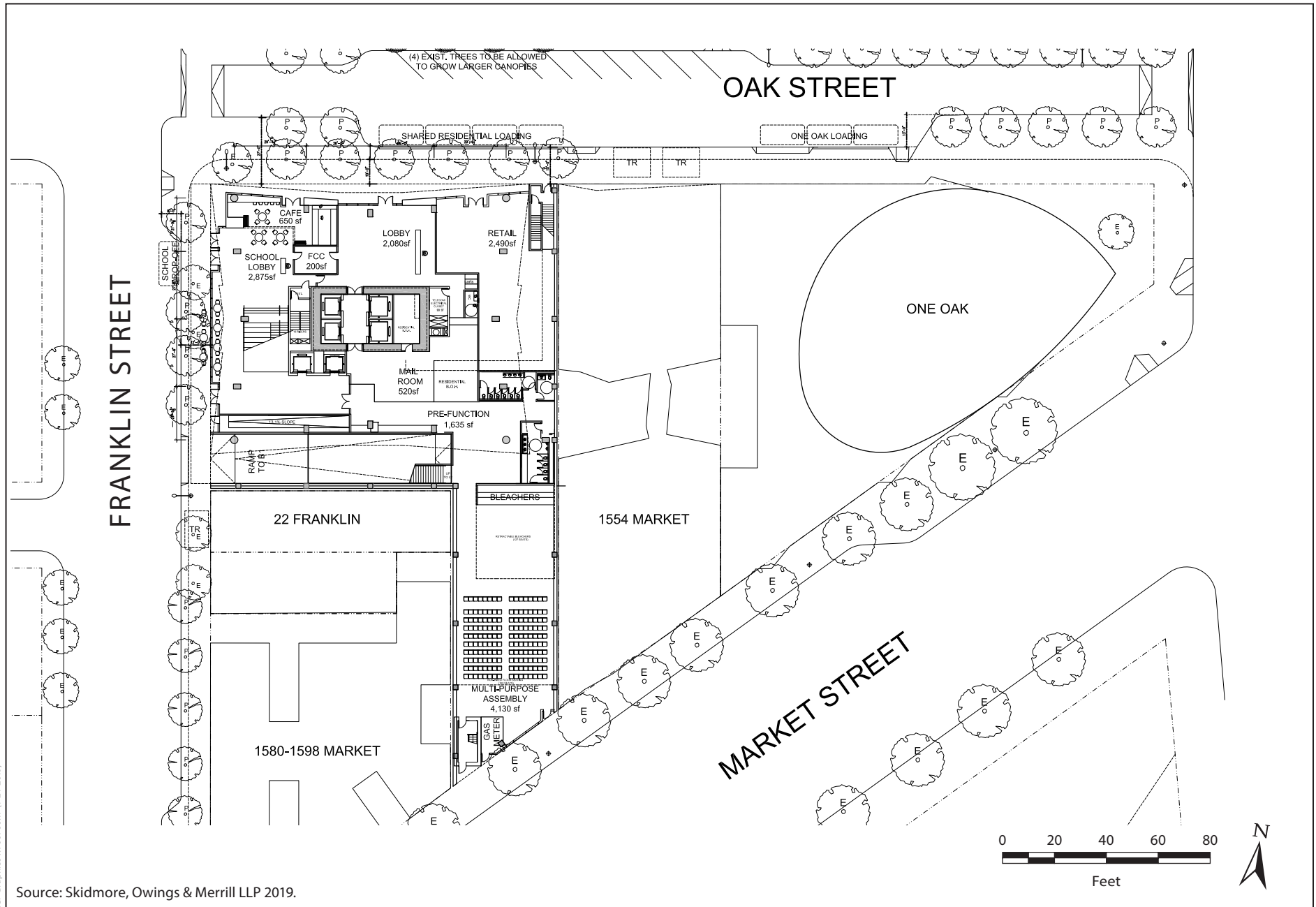
Figure 2-30
98 Franklin Street Project –
Proposed Basement Level 1 Plan



Source: Skidmore, Owings & Merrill LLP 2019.

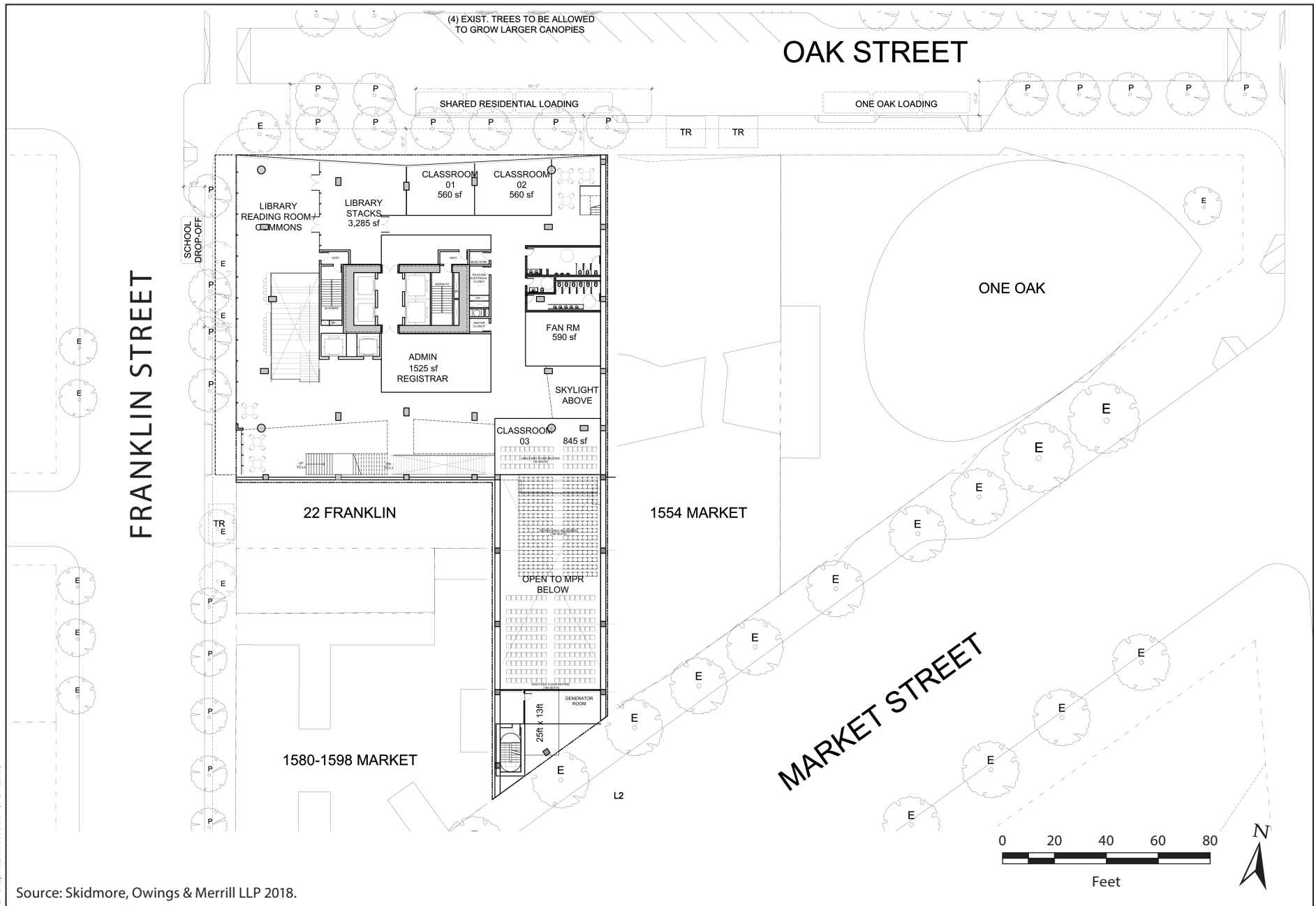
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-31
98 Franklin Street Project –
Proposed Basement Level 2 and 3 Plan



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

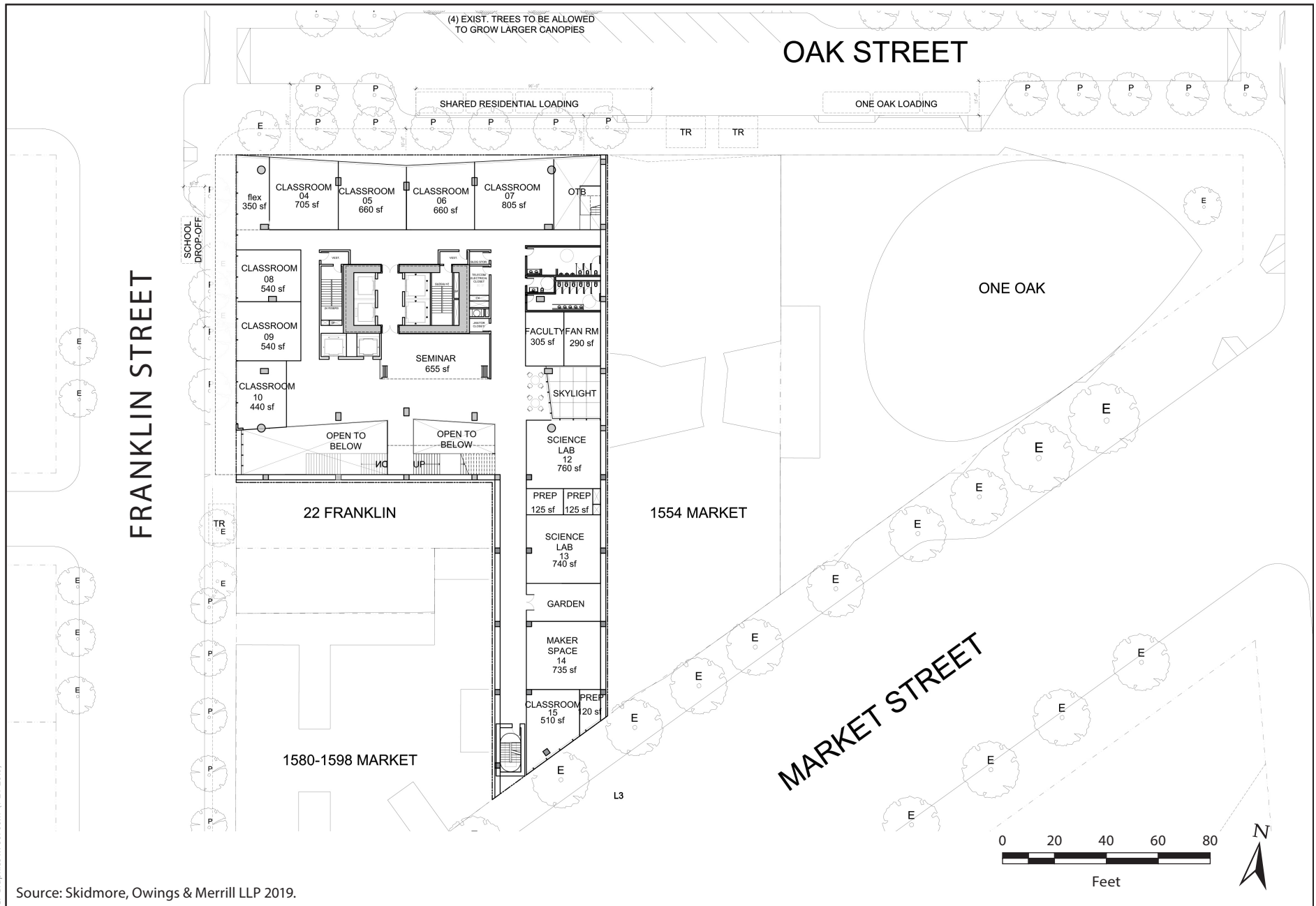
Figure 2-32
98 Franklin Street Project –
Proposed Ground Floor Plan



CF Graphics ... 0070017 (1-24-2019)

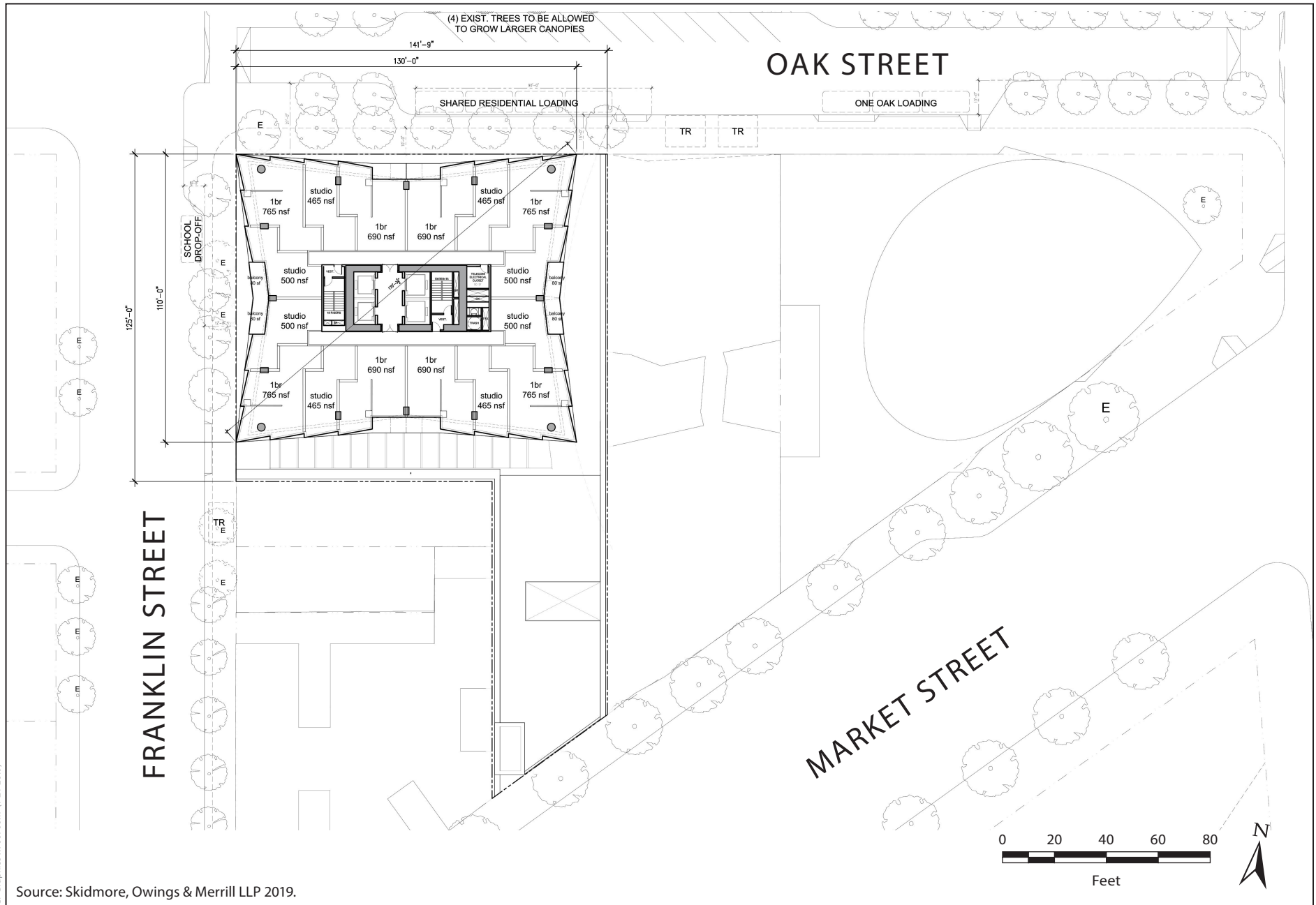
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-33
98 Franklin Street Project –
Proposed 2nd Level Floor Plan



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

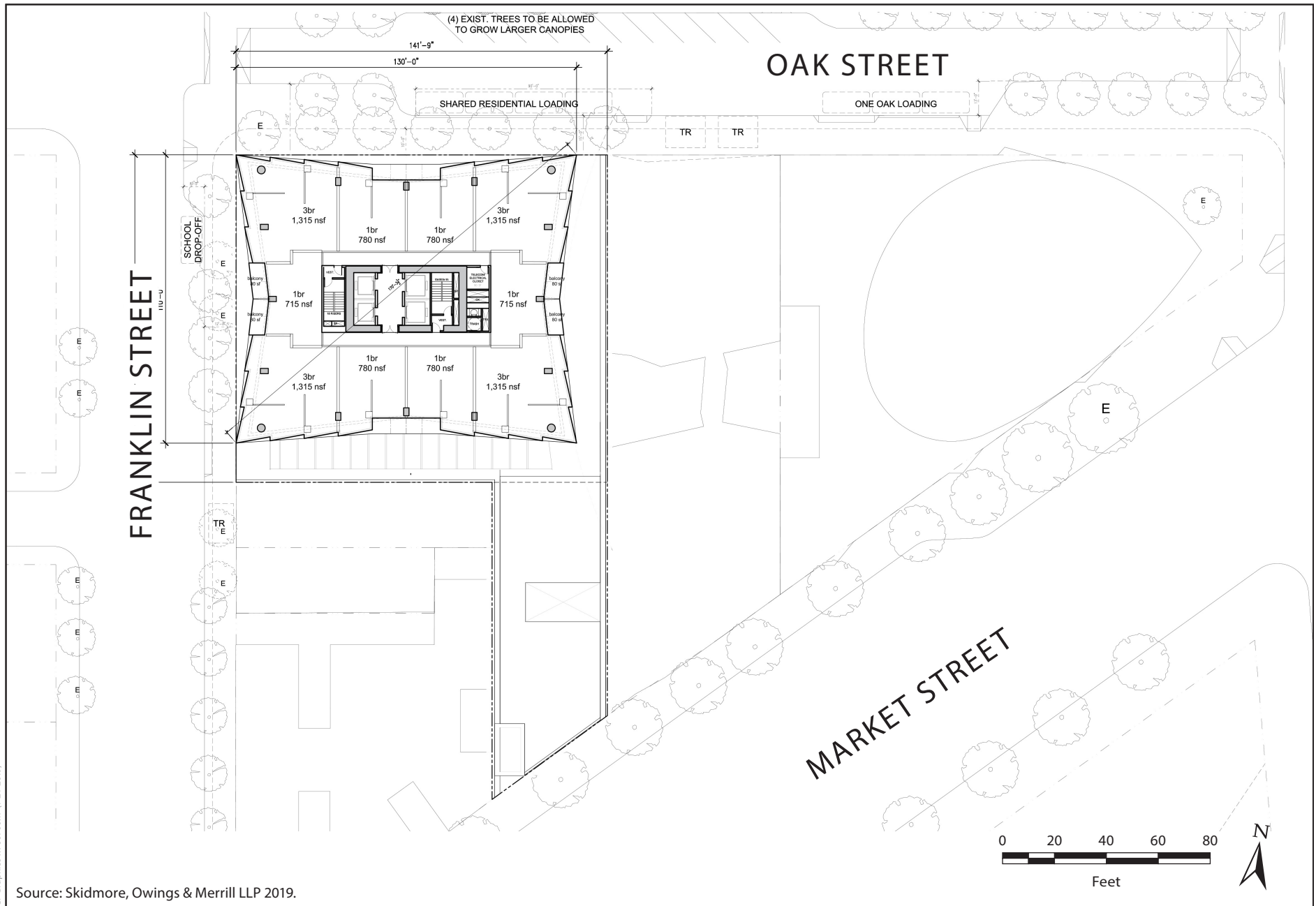
Figure 2-34
98 Franklin Street Project –
Proposed 3rd Level Floor Plan



CF Graphics ... 0070017 (1-24-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-35
98 Franklin Street Project –
Proposed Lower Tower Floor Plan



Source: Skidmore, Owings & Merrill LLP 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-36
98 Franklin Street Project –
Proposed Upper Tower Floor Plan



ICF Graphics ... 0070017 (11-24-2019)

Source: Skidmore, Owings & Merrill LLP 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-37
98 Franklin Street Project –
Proposed West and North Elevations

The proposed project would comply with all San Francisco lighting and sign requirements. The residential entrance would have standard security features, including card key access at certain times of day. The International High School (grades 9-12 of FAIS) would include a security desk, security employees, and traffic crossing guards for all ways (modes) people travel on Franklin and Oak streets. The school, residential uses, and retail uses would have approximately 14 new employees.

PROPOSED OPEN SPACE

The proposed project at 98 Franklin Street would include approximately 11,530 square feet of open space for the school, including a roof terrace (level 5) and other open spaces throughout the podium levels (5,000 square feet). For residential uses, a total of 22,400 square feet of commonly accessible open space would be located on the ground floor and in the tower, including a roof terrace and amenity-level open space on level 6 (6,530 square feet). These proposed open space areas are shown in **Figures 2-32 to 2-36**, pp. 2-77 to 2-81. None of the proposed open space areas would include permanent sound amplification systems. Any noise at outdoor open space areas would be limited in order to not be in excess of noise ordinance requirements.

The project would retain the one tree currently existing on the adjacent sidewalk and streetscape along Market Street and replace the three trees on the adjacent sidewalk and streetscape along Franklin and Oak streets. Approximately 17 additional street trees would be planted on Franklin and Oak streets. In addition, a canopy to reduce wind impacts is proposed along the north façade of the building.

PROPOSED PARKING AND CIRCULATION

ACCESS AND CIRCULATION FOR VEHICLES, BICYCLES, AND PEOPLE WALKING

The project site would be accessible from Franklin, Oak, and Market streets. Vehicular access to the parking garage would be via a 20-foot driveway on Franklin Street. Residential vehicular valet pickup and drop-off would be inside the parking garage on basement level 1. People bicycling could access the parking garage from the same driveway that vehicles use on Oak Street or use the entrances on Franklin or Oak streets.

Access for people walking to the interior of the building, including to the residential uses, management and residential services offices, school areas, and open space areas, would be provided by the residential lobby situated on Oak Street or the entrances along Franklin Street. Access to the upper-level school uses and residential floors would be provided by an elevator and stairway located adjacent to the lobby entrance on Oak Street.

Commercial loading demand (freight and delivery service) for the building would include residential moving trucks; garbage, compost, and recycling pickup vehicles; and delivery vehicles to residents, school spaces, and the retail space. Loading would occur within one off-street truck

loading space (10 by 25 feet) for freight and two off-street service-vehicle spaces (8 by 20 feet) in basement level 1 (from Franklin Street); however, garbage, compost, and recycling pickup could also occur on Franklin Street. Trucks would be able to park within the off-street loading dock, which would allow delivery personnel to access the residential, school, and retail uses when making deliveries. Larger residential moving vehicles would be accommodated on either Franklin Street or Oak Street by obtaining permits from MTA to use on-street vehicular parking and/or loading spaces. The garage/basement levels would be secured and accessible only to residents and retail operators.

The project proposes to provide white-curb loading zones on both Franklin and Oak streets. The 75-foot loading zone on Franklin Street would accommodate one vehicle for school-related loading but would be used only for special events. No students would regularly be dropped off or picked up at 98 Franklin Street. Parents would be instructed to drop off students in the existing white zones on Oak Street (between Franklin and Gough streets) and on Hickory Street (between Franklin and Gough streets), consistent with the school's current pickup and drop-off plan. In addition, the project proposes a 75-foot loading zone along Oak Street that would accommodate three vehicles for residential passenger loading adjacent to the building's residential lobby.

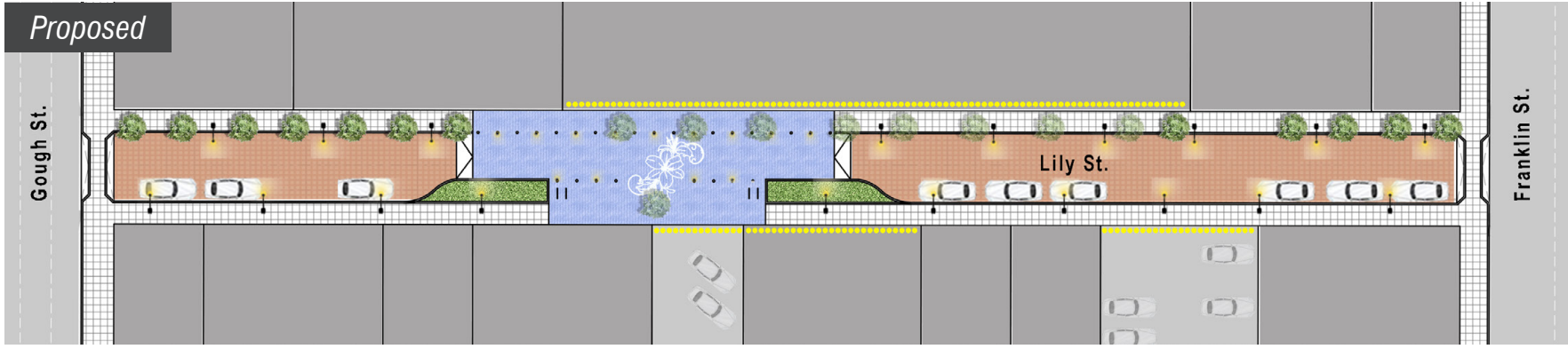
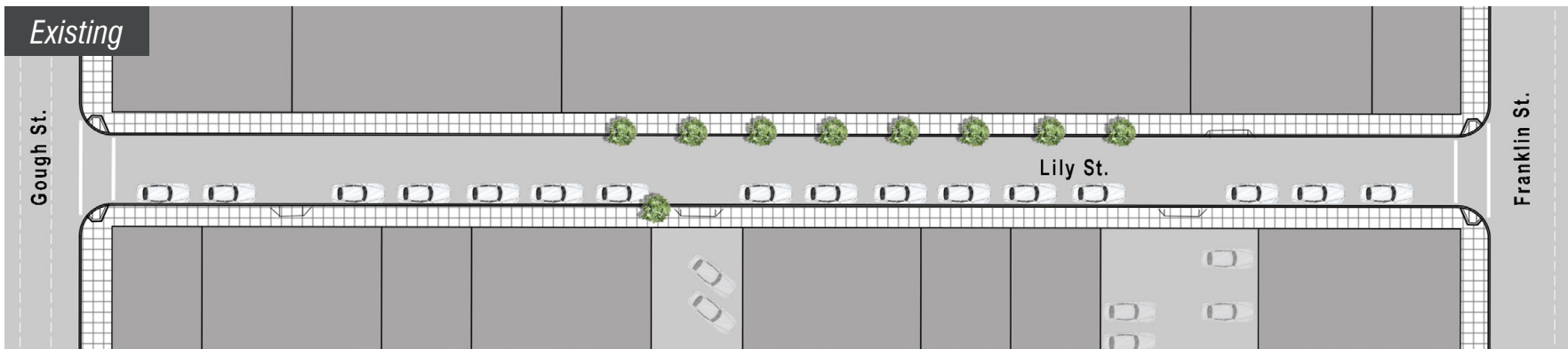
The project also proposes to widen the travel lanes adjacent to the project site to a minimum of 20 feet wide to accommodate emergency vehicles. In addition, a raised crosswalk would be added at Oak Street on the east leg of the intersection of Franklin and Oak streets.

LILY STREET: FRANKLIN STREET TO GOUGH STREET

The project sponsor for the 98 Franklin Street Project proposed improvements at Lily Street from Gough Street to Franklin Street, as shown in **Figure 2-38**, including the following:

1. Add a mid-block raised intersection to connect the two FAIS properties and integrate with high-quality paving, artwork, bollards, landscaped bulb-outs, and other place-making and vehicular traffic-calming elements.
2. Add raised crosswalks at the Franklin Street and Gough Street ends of the alley.
3. Add high-quality paving in the roadway.
4. Add trees, bollards, and lighting for people walking.

These improvements would be made by the 98 Franklin Street Project only if the Planning Commission approves an in-kind fee waiver for the cost of the improvements and such improvements are approved by Public Works.



LEGEND

- | | | | | | |
|--|---------------------|---|----------------------------|---|-------------------------------------|
|  | <i>Sidewalk</i> |  | <i>Special Paving</i> |  | <i>Midblock Raised Intersection</i> |
|  | <i>Street Tree</i> |  | <i>Raised Crosswalk</i> |  | <i>Raised Planter</i> |
|  | <i>Street Light</i> |  | <i>Pedestrian Lighting</i> |  | <i>Bollard Lighting</i> |

ICF Graphics ... 0070017 (11-14-2018)

Source: San Francisco Planning Department, 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 2-38
Lily Street: Franklin Street to Gough Street

VEHICULAR AND BICYCLE PARKING

Vehicular and bicycle parking proposed as part of the 98 Franklin Street Project is summarized in **Table 2-5** and shown in **Figures 2-30 through 2-32**, pp. 2-75 to 2-77. No on-street vehicular parking would be provided as part of the proposed project. The project would remove some on-street vehicular parking at the intersection of Oak and Franklin streets to create a bulb-out and convert any remaining curb space along the project site to loading zones. Within the basement level of 98 Franklin Street, a total of 111 vehicular parking spaces would be provided, 82 spaces for residential uses and 29 spaces for school uses. The project would also provide three car-share spaces and one Americans with Disabilities Act-compliant space. All residential vehicular parking would be operated by a valet. The project would also include 345 class 1 bicycle parking spaces in basement level 1 for residential uses and 144 class 1 bicycle parking spaces for school uses in basement level 1. Both the residential and school bicycle parking could be accessed from a separate ramp adjacent to the vehicular access ramp or the elevator in the residential and building lobbies. On the adjacent sidewalk, on either Oak or Franklin Street, or both, 17 class 2 bicycle spaces would be provided for the residential uses and 36 class 2 bicycle parking spaces would be provided for the school.

TABLE 2-5. PROPOSED VEHICULAR, LOADING, AND BICYCLE PARKING AT 98 FRANKLIN STREET

	Number of Parking Spaces
Vehicular Off-Street Parking Spaces (total)	108
<i>ADA</i>	1
<i>SF Compact/Standard</i>	104
<i>Car-Share Spaces</i>	3
Service Vehicle Loading Spaces	3
Bicycle Parking Spaces (total)	539
<i>Class 1 Spaces</i>	489
<i>Class 2 Spaces</i>	50

Source: Skidmore, Owings & Merrill LLP 2018.

CONSTRUCTION

Construction of the proposed project at 98 Franklin Street would occur in a single phase lasting approximately 27 months, from 2021 to 2023, and consisting of several stages: (1) demolition, (2) shoring, (3) excavation, (4) foundation and below-grade construction, (5) above-grade structure, (6) exterior finishing, (7) interior finishing, and (8) sidewalks and landscaping. The project would construct a Type 1 structure³² with a mat slab foundation to support the building.

The vehicular parking lane on all three frontages of the project site—Franklin, Oak, and Market streets, would be closed for the duration of construction of the above-grade structure (until

³² Type 1 structures are constructed of concrete and protected steel (steel coated with a fire-resistant material, most often a concrete mixture) and designed to hold fire for an extended amount of time to prevent the spread of a fire.

interior elevators are operational). Construction activities may also require temporary travel-lane closures of the easternmost travel lane on Franklin Street approximately twice per week for about 12 months, until the interior elevators in the above-grade structure are operational. Franklin and Oak streets would be used for unloading during project construction. It is anticipated that a portion of the sidewalks adjacent to the project site on Franklin and Oak streets would be closed for the duration of construction. People walking would be directed to the opposite sides of the street. On Market Street, it is anticipated that a protected walkway for people walking would be provided within the remaining sidewalk. Sidewalks would be used as laydown/staging areas during project construction. People walking would be rerouted across the streets at intersections.

Typical construction equipment that would be used at the project site would include dozers, dump trucks, excavators, pile hammers, concrete pump trucks, augers, cranes, and air compressors. Construction equipment would be staged either on the project site or along Franklin Street. Large equipment (e.g., tower crane) would be staged on the project site. Construction materials would be loaded and off-loaded using the closed vehicular parking lane and closed eastern vehicular traffic lane on Franklin Street as well as the closed vehicular parking lane on Oak Street. Materials would be scheduled to arrive when required in the construction sequence. All impact equipment used for project construction would be equipped with the appropriate noise control features, as required by the noise ordinance.

For vehicles, the construction team would occupy the vehicular parking lanes on all frontages and the easternmost vehicular traffic lane on Franklin Street for the period of time between when above-grade structure commences to when the interior elevators are operational. There would be periodic lane closure requests in addition to the aforementioned closures; however, the project would endeavor to minimize the vehicular traffic effects to the extent possible.

There would be up to three shifts for construction workers on weekdays and weekends: regular shift (6 a.m. to 3 p.m.), swing shift (3 p.m. to 11 p.m.), and night shift (11 p.m. to 7 a.m.).³³ An exception to the noise ordinance would need to be approved for the project by the Department of Building Inspection (private property) or San Francisco Public Works (public rights-of-way) to allow project construction to occur between the hours of 8 p.m. and 7 a.m. Activities that would result in no detectable noise at adjacent land uses, such as interior painting, would not be limited to the hours of 7 a.m. to 8 p.m. and would be able to occur at night. During the regular shift, which would include the most construction workers, there would be an average of 200 workers onsite, with a maximum of 350 workers onsite during the interior finishing construction phase. The mode of access for construction workers would be primarily public transit because of the site's proximity to several transit stops, although some workers could drive and park at on-street

³³ If the building uses pre-cast façade materials, the pre-cast materials would be delivered during evening and early morning hours, potentially until 7 a.m., which would cause a one-hour overlap. This overlap would occur only during the portion of construction when delivery of the pre-cast materials occurs, which is a subset of the overall construction schedule.

vehicular parking spaces or nearby vehicular parking garages. No dedicated construction worker vehicular parking would be provided.

The project would excavate approximately 31,670 cubic yards of material at the site, all of which would be exported, to a depth of up to 39 feet below grade. To accommodate this, the project would require 60 trucks onsite on average per shift per day and a maximum of 90 trucks onsite per shift per day during excavation. The project would also require 550 truck trips over one 14-hour period on a weekend during the tower mat concrete pour. The proposed haul route for the excavated soil would have trucks arrive at the project site via northbound U.S. 101 and either (1) continue north on Octavia Boulevard, turn right on Oak Street eastbound, to Franklin Street northbound, to Fell Street eastbound, to Van Ness Avenue southbound to Oak Street eastbound, or (2) continue north on Octavia Boulevard, turn right on Page Street, and turn left on Franklin Street. Any soil removed from the project site would be trucked to an appropriate landfill following testing pursuant to City and state requirements for hazardous materials. All local, state, and federal laws with respect to trucking and dust control (e.g., watering down the site, washing off truck tires, tarping truck loads) would be followed, and specifications would be included for dust control, construction waste and spoils disposal, and spillage.

UTILITIES

There is currently no utility infrastructure that serves the project site. The SFPUC would provide electric service to the proposed project at 98 Franklin Street. The SFPUC uses PG&E's distribution facilities and designs and constructs facilities in accordance with PG&E standards. The SFPUC would serve the proposed project with a single 12-kilovolt line located in a utility trench.

Potable water is provided by the SFPUC to the project site by an existing water main located within Market Street. With proposed project development onsite, at least one new connection to the existing water main beneath Market Street is proposed. The project may also include the installation of an onsite system of high-pressure water pipes to connect to the City's existing Auxiliary Water Supply System or an alternative solution, as coordinated with the SFPUC.

The San Francisco Stormwater Management Ordinance (as codified in section 147 of the San Francisco Public Works Code) requires that new and redevelopment projects that create and/or replace at least 5,000 square feet of impervious surface implement requirements for managing post-construction stormwater runoff consistent with the Stormwater Management Requirements and Design Guidelines. Sites with existing imperviousness of greater than 50 percent (such as the project site) are required to be designed such that stormwater runoff rate and volume not exceed pre-development conditions for the one- and two-year, 24-hour design storm. Compliance with the Stormwater Management Requirements and Design Guidelines would ensure that stormwater generated by the proposed project would not contribute additional volumes of polluted runoff to the City's stormwater infrastructure.

The entire project site is covered in impervious surfaces. The proposed project at 98 Franklin Street would result in a similar amount of impervious (hardscape) surfaces on the site by removing the existing surface vehicular parking lot and developing the site with a building that would not include any permeable surfaces. Stormwater flows and retention would meet existing requirements and be accommodated through onsite rainwater and stormwater collection features that would detain rainwater and stormwater. The proposed project would also provide new plantings and street trees on Franklin, Oak, and Market streets, in accordance with the Better Streets Plan. The proposed project would conform to the stormwater management requirements imposed by the SFPUC and any other regulatory body (i.e., Regional Water Quality Control Board).

The proposed project at 98 Franklin Street would include one emergency generator to supply electricity to the building and facilities during a power outage. It would be located on the roof of level 2, venting out through level 5. The emergency generator would be a 1,500-horsepower diesel unit that would operate 50 hours per year.

The proposed project would either seek LEED certification or meet the applicable GreenPoint requirements, which include measures applicable to both construction and operation of the proposed project. The proposed project would incorporate several sustainability features, including stormwater and rainwater collection features and a wastewater treatment system.

F. THE HUB HOUSING SUSTAINABILITY DISTRICT

An HSD creates a streamlined ministerial approval process for housing or mixed-use projects that meet certain requirements. The City, through adoption of an ordinance by the San Francisco Board of Supervisors, could choose to designate portions or all of the Hub Plan area as an HSD, in accordance with Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11. To qualify as an HSD, the following general requirements must be met:

1. The HSD must be within 0.5 mile of public transit or otherwise highly suitable for residential or mixed-use development;
2. The area of an individual district must not be larger than 15 percent of the city's total land area;
3. An ordinance creating the district must include procedures and timelines for review of projects;
4. At least 20 percent of all housing units constructed in the HSD must be affordable to very low, low, and moderate income households for a period of no less than 55 years; and
5. The HSD must allow for ministerial approval of housing (including mixed-use residential) projects.

The Hub Plan area meets criteria 1 and 2, above, and is anticipated to meet criteria 3 and 4. Any local ordinance creating an HSD would allow for ministerial approval of projects, satisfying criterion 5. The HSD could include all or a subset of sites within the plan area that are zoned to permit residential use.

In order to participate in an HSD, an individual project would need to:

1. Make at least 10 percent of the units onsite affordable to lower-income households (in San Francisco, all projects would still be required to satisfy Planning Code section 415 inclusionary requirements, either by providing all inclusionary units onsite or a combination of onsite and fee payments);
2. Meet labor standards, including prevailing wage and trained workforce requirements, if meeting certain project size thresholds;
3. Meet any adopted design review standards;
4. Be approvable through a ministerial process; and
5. Incorporate applicable mitigation measures from the EIR evaluating the HSD ordinance (i.e., this Hub Plan and Related Actions EIR).

The HSD could include all sites within the Hub Plan area that are zoned to permit residential use. Should the plan area be designated as an HSD, implementation of the HSD would not change or intensify the anticipated physical or programmatic parameters of development expected or allowed under the proposed Hub Plan. Pursuant to Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11, projects approved pursuant to the Hub HSD would not be subject to further environmental review.

G. PROJECT APPROVALS

THE HUB PLAN

The Hub Plan would be subject to review and approval by agencies with appropriate jurisdiction, including various City agencies. These agencies are expected to use the EIR in their decision-making for project approvals, including but not limited to those listed below.

SAN FRANCISCO PLANNING COMMISSION

- Certify EIR.
- Initiate general plan amendments.
- Recommend to the San Francisco Board of Supervisors general plan amendments, planning code text amendments, and zoning map amendments to update the Market and Octavia Area plan and change the land use, zoning, and height and bulk classifications in the Hub Plan area.

SAN FRANCISCO BOARD OF SUPERVISORS

- Approve general plan amendments, planning code text amendments, and zoning map amendments to update the Market and Octavia Area plan and change the land use, zoning, and height and bulk classifications in the Hub Plan area.
- Approve encroachment permits for the installation of nonstandard street or sidewalk paving or other nonstandard street or sidewalk improvements.

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

- Approve vehicular parking and traffic changes associated with the Hub Plan's circulation, streetscape improvements, and street network changes.

SAN FRANCISCO PUBLIC HEALTH

- Approve the use of groundwater wells during dewatering associated construction.

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

- Approve landscape and irrigation plans. This applies to projects installing or modifying 500 square feet or more of landscape area.
- Approve the use of groundwater wells during dewatering associated construction.

SAN FRANCISCO PUBLIC WORKS

- Approve streetscape improvements.

CALTRANS

- Approve the redesign of South Van Ness Avenue (U.S. 101) between Mission and 13th streets.

INDIVIDUAL DEVELOPMENT PROJECTS

The individual projects would be subject to review and approval by agencies with appropriate jurisdiction, including various City and other local, state, and federal agencies. These agencies are expected to use the EIR in their decision-making for project approvals, including, but not limited to, those listed below. Approval of the Hub Plan by the San Francisco Planning Commission and San Francisco Board of Supervisors, specifically, the general plan, planning code, and zoning map amendments, would also approve land use and height changes proposed for the individual projects.

30 VAN NESS AVENUE PROJECT

SAN FRANCISCO PLANNING COMMISSION

- Certify EIR.
- Approve an office allocation, pursuant to Planning Code section 321.
- Approve a Downtown Project Authorization by the Planning Commission, per Planning Code section 309, for projects within the Downtown Commercial (C-3-G) district more than 50,000 square feet in area or more than 75 feet in height, with exceptions to the requirements of Reduction of Ground-Level Wind Currents in C-3 Districts (Planning Code section 148) and Reduction of Shadows on Certain Public or Publicly Accessible Open Spaces in C-3 Districts (Planning Code section 147).
- Approve a conditional use authorization to exempt the floor area attributed to the onsite inclusionary affordable units from the floor area ratio (Planning Code section 124).
- Approve potential variances under Planning Code section 305 if required by final design of the building.
- Approve potential in-kind agreement for public infrastructure or facilities consistent with planning code requirements if proposed by the sponsor.

SAN FRANCISCO BOARD OF SUPERVISORS

- Approval of modification to the planning code to allow for the use of permitted accessory nonresidential parking spaces for residential parking.

SAN FRANCISCO DEPARTMENT OF BUILDING INSPECTION

- Approve and issue construction permits.

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

- Approve on-street vehicular parking and on-street loading changes.

SAN FRANCISCO PUBLIC HEALTH

- Approve the use of groundwater wells during dewatering associated construction.

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

- Approve landscape and irrigation plans. This applies to projects installing or modifying 500 square feet or more of landscape area.
- Approve the use of groundwater wells during dewatering associated construction.

SAN FRANCISCO PUBLIC WORKS

- Approve any proposed new, removed, or relocated street trees and/or landscaping within the public sidewalk.
- Approve streetscape changes.
- Approve situations where construction would need to extend beyond normal hours, between the hours of 8 p.m. and 7 a.m., such as concrete pours, crane and hoist erection and adjustment activities, site maintenance activities, and material delivery and handling.
- Approve and issue permits for wind canopies.

98 FRANKLIN STREET PROJECT**SAN FRANCISCO PLANNING COMMISSION**

- Certify EIR.
- Approve a Downtown Project Authorization, pursuant to Planning Code section 309, for new construction or substantial alteration of structures in C-3 Districts, with exceptions to the requirements of Reduction of Ground-Level Wind Currents in C-3 Districts (Planning Code section 148) and Reduction of Shadows on Certain Public or Publicly Accessible Open Spaces in C-3 Districts (Planning Code section 147).
- Approve a conditional use authorization to exempt the floor area attributed to the onsite inclusionary affordable units from the floor area ratio requirement (Planning Code section 124)
- Approve potential variances for dwelling unit exposure under Planning Code section 305 if required by final design of the building.
- Approve an in-kind fee waiver for the proposed improvements to Lily Street.

SAN FRANCISCO DEPARTMENT OF BUILDING INSPECTION

- Approve and issue demolition and construction permits.

SAN FRANCISCO MUNICIPAL TRANSPORTATION AGENCY

- Approve on-street vehicular parking and on-street loading changes.

SAN FRANCISCO PUBLIC HEALTH

- Approve the use of groundwater wells during dewatering associated construction.

SAN FRANCISCO PUBLIC UTILITIES COMMISSION

- Approve landscape and irrigation plans. This applies to projects installing or modifying 500 square feet or more of landscape area.
- Approve the use of groundwater wells during dewatering associated construction.

SAN FRANCISCO PUBLIC WORKS

- Approve any proposed new, removed, or relocated street trees and/or landscaping adjacent to the public sidewalk.
- Approve the proposed improvements to Lily Street.
- Approve streetscape changes at 98 Franklin Street.
- Approve situations involving construction that would need to extend beyond normal hours (i.e., between 8 p.m. and 7 a.m.); these could include concrete pours, crane and hoist erection and adjustment activities, site maintenance activities, and material delivery and handling.
- Approve and issue permits for wind canopies.

THE HUB HOUSING SUSTAINABILITY DISTRICT**SAN FRANCISCO PLANNING COMMISSION**

- Certify EIR.
- Recommend to the San Francisco Board of Supervisors text amendments for the planning code as well as business and tax regulations to designate portions or all of the Hub Plan area as an HSD.

SAN FRANCISCO BOARD OF SUPERVISORS

- Adopt an ordinance that amends the planning code as well as business and tax regulations to designate portions or all of the Hub Plan area as an HSD.

3. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

A. INTRODUCTION

This chapter analyzes the physical environmental effects of implementing the Hub Plan¹ described in Chapter 2, Project Description, including the proposed streetscape and street network improvements, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the designation of portions or all of the Hub Plan area as a housing sustainability district (HSD). Also included in this chapter is the regulatory framework applicable to the Hub Plan and related actions, the thresholds used to determine the significance of potential impacts, the construction and operational impacts that may occur as a result of project implementation, and measures to mitigate identified significant impacts.

B. INITIAL STUDY

The San Francisco Planning Department (department) prepared an initial study to determine which environmental topics would require further study and analysis in an environmental impact report (EIR). The initial study (Appendix B) found impacts related to the topics of land use/planning, aesthetics, population and housing, tribal cultural resources, greenhouse gas emissions, recreation, utilities and service systems, public services, geology and soils, hydrology and water quality, mineral resources, energy, and agriculture and forestry resources, and wildfire to be less than significant, thereby requiring no further study in the EIR. The initial study found significant impacts related to biological resources, geology and soils, and hazards and hazardous materials; mitigation measures were identified that would reduce those impacts to less than significant. The initial study's conclusions are summarized in **Table S-2**, p. S-58, in the Summary.

C. SCOPE AND ORGANIZATION OF THIS CHAPTER

This chapter is organized by environmental resource topic, as follows:

- | | |
|--|---------------------|
| A. Cultural Resources (CUL) | D. Air Quality (AQ) |
| B. Transportation and Circulation (TR) | E. Wind (WI) |
| C. Noise (NOI) | F. Shadow (SH) |

¹ The Hub Plan is an amendment to the 2008 Market and Octavia Area Plan; no separate Hub Plan will be published.

Each environmental topic in the table above is presented within a setting (i.e., a description of physical characteristics applicable to the environmental topic) to compare conditions as they exist without the project and then again with anticipated activities, regulations, and subsequent development under the Hub Plan, the two individual development projects, and the Hub HSD, which is the basis for the analysis of environmental impacts. Thus, the evaluation of impacts in this chapter under each environmental topic is based on specific “study areas” dictated by the characteristics of the resource being evaluated as well as the type, magnitude, and location of potential environmental effects. The introduction to each resource topic in this chapter defines the setting where the effects of the Hub Plan, the two individual development projects, and the Hub HSD are considered and clarifies relevant details regarding the definition and location of the study area if different from the Hub Plan area shown in **Figure 2-1**, p. 2-2, in Chapter 2, Project Description.

Each section of this chapter contains the following elements, based on the requirements of the California Environmental Quality Act (CEQA):

- *Environmental Setting.* This section presents a description of the existing physical environmental conditions in the Hub Plan area with respect to each resource topic as of May 2018, the month and year when the department issued a notice of preparation (NOP) for initiating environmental review. The environmental setting constitutes baseline physical conditions by which potential impacts of the Hub Plan, the two individual development projects, and the Hub HSD are assessed for significance. CEQA Guidelines section 15360 defines the environment (or the setting) as “the physical conditions which exist within the area which will be affected by a proposed project.”
- *Regulatory Framework.* The regulatory section provides an overview of statutory and regulatory considerations that are applicable to the specific environmental topic.
- *Impacts and Mitigation Measures.* The impacts and mitigation measures section for each environmental topic presents a discussion of the impacts (i.e., the changes to baseline physical environmental conditions) that could result from implementation of the Hub Plan, the two individual development projects, and the Hub HSD. Where applicable, both construction and operational impacts are analyzed as well as project-specific and cumulative impacts. The section begins with the criteria of significance, which establish the metric by which significance is determined. The latter part of this section assesses the impacts occurring as a result of project implementation and mitigation measures, if required. Project impacts are organized into separate categories, based on the criteria listed in each topical section. Impacts are numbered and shown in bold type, and the corresponding mitigation measures, where identified, are numbered and indented, following the impact statements. Impacts are numbered consecutively within each topic. Mitigation measures are labeled alphabetically within each impact statement. Each mitigation measure includes an abbreviated reference to the impact section (e.g., AQ).

- *Cumulative Impacts*. This section considers the incremental effects of implementing the Hub Plan, two individual development projects, and Hub HSD, together with the environmental effects of other closely related past, present, and reasonably foreseeable probable future projects proposed by the department, other jurisdictions, or other entities (i.e., private developers, non-profit organizations, etc.). The analysis of cumulative impacts under each resource topic is based on the same setting, regulatory framework, and significance criteria as the analysis of project-specific impacts. Additional mitigation measures are identified if the analysis determines that the Hub Plan, two individual development projects, and Hub HSD, causes or makes a cumulatively considerable contribution to a significant adverse cumulative impact.

D. CLASSIFICATION OF IMPACTS

Impacts are categorized by type of impact, as follows:

- *No Impact (NI)*. No adverse changes (or impacts) on the environment are expected.
- *Less than Significant (LTS)*. An impact that would not involve an adverse physical change to the environment, does not exceed the defined significance criteria, or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.
- *Less than Significant with Mitigation (LTSM)*. An impact that is reduced to a less-than-significant level through implementation of the identified mitigation measures.
- *Significant and Unavoidable with Mitigation (SUM)*. An adverse physical environmental impact that exceeds the defined significance criteria and can be reduced through compliance with existing local, state, and federal laws and regulations and/or implementation of all feasible mitigation measures but cannot be reduced to a less-than-significant level.
- *Significant and Unavoidable (SU)*. An adverse physical environmental impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations and for which there are no feasible mitigation measures.

E. MITIGATION MEASURES

Section 15126.4 of the CEQA Guidelines directs preparers of an EIR to describe feasible measures that could minimize significant adverse impacts. Mitigation measures are developed to avoid, minimize, rectify, reduce, or eliminate an impact or compensate for an impact resulting from project implementation. Section 15041 of the CEQA Guidelines grants

authority to the lead agency to require feasible changes in any or all activities involved in a project to substantially lessen or avoid significant effects on the environment. Feasible mitigation measures have been included in this chapter for specific environmental impacts where applicable.

F. APPROACH TO THE ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential Special Use District to encompass the southern portion of the Hub Plan area. The proposed rezoning would allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect environmental resources. These projects are described and analyzed on a project-specific level.

This EIR evaluates potential impacts that would result from the increase in density and construction due to implementation of the Hub Plan and Hub HSD as well as the two individual development projects and the Hub Plan streetscape and street network improvements. **Table 3-1** presents population and employment projections for the Hub Plan area that would result from implementation of the Hub Plan, including the streetscape and street network improvements, the two individual development projects, and the Hub HSD. The Hub Plan could result in up to approximately 8,100 housing units, 15,700 new city residents, and 275 new jobs.

It is noted that the 8,100 housing units incorporates a 15 percent buffer beyond what was originally projected under the plan (approximately 7,040 housing units). This is intended to account for potential density bonuses, including the State Density Bonus Program, 100 percent Affordable Housing Bonus Program, and HOME-SF (the City and County of San Francisco's [City's] local density bonus program).

It is further noted that although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) surpasses the total number of jobs listed in **Table 3-1** for the entire Hub Plan area (275), it is expected that other sites throughout the Hub

TABLE 3-1. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Residents			
The Hub Plan	8,100 units ^a	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^b	15,700 residents ^c
30 Van Ness Avenue ^d	520,000 sf/610 units 229 studios 229 one-bedroom units 92 two-bedroom units 60 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^b	1,067 residents
98 Franklin Street ^d	384,080 sf/345 units 172 studios 86 one-bedroom units 54 two-bedroom units 33 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^b	587 residents
Employees			
The Hub Plan - Commercial	N/A	N/A	275 employees ^e
30 Van Ness Avenue – Office	350,000 sf	240 sf/employee	1,460 employees ^f
30 Van Ness Avenue – Retail	21,000 sf	350 sf/employee	60 employees ^f
98 Franklin Street – Retail	3,100 sf	350 sf/employee	9 employees ^g
98 Franklin Street – Institutional (School)	81,000 sf	N/A	5 employees ^g

Source: San Francisco Planning Department, *Hub Plan Development Estimates and Methodology*, June 13, 2019.

^a Future residential development under the Hub Plan was calculated by taking anticipated total gross square footage and dividing by 1,200 gross square feet per residential unit. This number was then increased by 15 percent to account for the potential density bonuses, including the State Density Bonus Program, 100 percent Affordable Housing Bonus Program, and HOME-SF (the City and County of San Francisco's [City's] local density bonus program).

^b Two or more bedrooms.

^c Future population estimated from a weighted average of 1.94 persons per developed residential unit, assuming a unit mix of 20 percent studio, 40 percent one bedroom, and 40 percent two bedroom, with average occupancy of 1.3, 1.7, and 2.5, respectively. Future population estimate reflects the 15 percent increase in the number of residential units assumed in note "a," above.

^d The total number of residential units and residents under the 30 Van Ness Avenue and 98 Franklin Street projects is included in the totals provided for the Hub Plan.

^e Jobs were estimated from anticipated gross square footage of development by use type. It is noted that the transportation model run that was completed before 170 Otis was added as one of the Hub Plan sites; however, the

TABLE 3-1. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
approximately 125 employees that could be added on this site as a result of the upzoning under the Hub Plan are accounted for in the 275 additional employees listed in this table under the Hub Plan.			
^f This table presents the estimated maximum number of employees that would be generated by the 30 Van Ness Avenue Project. As discussed in Chapter 3, the existing uses at the project site include general office, pharmacy, and restaurant uses. Based on the employee density factors used by the planning department for non-residential uses, these existing uses, in combination, would yield approximately 816 existing employees at the site. Thus, the total number of net new employees that would be generated by the proposed 30 Van Ness Avenue Project is approximately 700. The SF-CHAMP transportation model that was run for the proposed project, with output that feeds into the transportation, air quality, and noise analyses in this EIR, nets out the existing uses at this site.			
^g This table does not take into account the approximately two employees associated with the existing parking lot use at 98 Franklin Street.			

Plan area that currently include non-residential uses (and therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net increase of approximately 275 jobs area-wide. Analysis of the physical effects of implementation of the Hub Plan is based in part on the above growth assumptions.

One of the project sites being considered for upzoning as part of the Hub Plan, at 170 Otis Street, was added in October 2018, after the original population and employment numbers were developed and incorporated into the SF-CHAMP transportation model run. A proposed maximum height of 150 feet at this site would be able to accommodate two stories of office uses, which could generate approximately 125 jobs. The 125 jobs are included as part of the total jobs anticipated area wide as a result of the Hub Plan (in Table 3-1, above); however, because they were not included as part of the SF-CHAMP model run that was conducted for the project, they were not explicitly part of those projections. However, any incremental travel demand associated with the additional employees at 170 Otis Street would supplant a portion of the 15 percent buffer that was included in the transportation model run for the residential uses, as explained above. Moreover, the additional height that is assumed at 170 Otis Street is considered as part of the wind and shadow analysis, as explained further in those sections. Any subsequent future project proposed at this location would be required to undergo project-specific CEQA analysis, which would consider all site- and project-specific impacts. It is not expected that environmental impacts associated with such projects would be more severe than those disclosed in this EIR.

Although the Hub Plan EIR contains projections of population and housing growth through 2040, the EIR does not include these population and housing projections as a cap or limit to growth within the areas that would be subject to the Hub Plan. Rather, the growth projections are based on the best estimates that were available at the time when this Hub Plan EIR was published and do not constitute “caps” on permissible development or estimates of maximum

capacity at buildout under the proposed rezoning. The growth projections in the EIR are an analytical tool to contextualize the potential environmental impacts of the Hub Plan. The EIR assumes a total amount of development resulting from the Hub Plan that consists of all development types (residential, commercial, office, etc.), also taking into account existing uses throughout the Hub Plan area, and analyzes potential impacts, based on this total net development amount.

The population growth projections do not represent a cap or the upper limit of development permissible under the Hub Plan. Furthermore, an exceedance of the growth projections would not necessarily result in significant physical environmental impacts. For example, population estimates are used to assess whether the Hub Plan would increase the use of neighborhood parks such that substantial physical deterioration of the facilities would occur or require construction of new physical recreation facilities that might have an adverse physical effect on the environment. Similarly, population estimates are used to analyze the potential need for new public services (such as a police or fire services) and utilities, the construction of which could result in adverse physical effects. In other words, even if an exceedance of the growth projections occurs over time (as subsequent development projects are proposed in the future), the environmental review for those projects will focus on whether new or more severe physical environmental impacts than those that were previously analyzed in the EIR will occur. In addition, the analysis in CEQA documents typically presents existing and existing-plus-project scenarios to identify impacts by comparing conditions with the proposed project to existing conditions. However, in the study area, several transportation infrastructure projects and land use development projects are under construction or were recently completed. Some are approved and funded and therefore expected to be under construction or completed by the time the proposed project (i.e., development under the Hub Plan, including the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street) is under construction. Because of these changing conditions, a modified or future baseline, different from existing conditions, was determined to be appropriate for the analyses prepared in this section because an analysis based on existing conditions could be misleading to decision makers and the public.

The baseline includes land use development projects that were under construction at the time when the NOP was published (May 23, 2018). Transportation infrastructure projects that were approved and funded, and therefore likely to be completed by the time the proposed project would be under construction, are also included as part of baseline conditions. This future baseline year was determined to be 2020 because it aligns with the baseline analysis year of the model used for the transportation analysis. The projects included in the 2020 baseline condition will result in implementation of various transportation network changes. These include travel-lane reductions, new bicycle lanes, safety projects, streetscape projects that have been recently implemented (e.g., Upper Market Street Safety Project, Safer Market Street Project, signal timing changes on Market and Mission streets, which were completed prior to 2018), transportation projects that have been approved and funded or are under construction (e.g., Van Ness Bus Rapid

Transit/Van Ness Improvement Project, Polk Street Streetscape Project), and land use development projects that will most likely be completed by the 2020 baseline year (e.g., 1546–1564 Market Street Project, 1629 Market Street Project, 1699 Market Street Project, 1500 Mission Street Project, 150 Van Ness Avenue Project, 22–24 Franklin Street Project).

G. APPROACH TO CUMULATIVE IMPACTS

CEQA requires an evaluation of a proposed project’s potential contributions to cumulative impacts, in addition to proposed project-specific impacts. CEQA Guidelines section 15130(a)(1) states that a “cumulative impact consists of an impact which is created as a result of the combination of the proposed project evaluated in the EIR together with other proposed projects causing related impacts.” Other proposed projects include past, present, and reasonably probable future proposed projects.

CEQA Guidelines section 15130(b)(1) states that the approach to the cumulative impact analysis may be based on either of the following approaches, or a combination thereof:

- A list of past, present, and probable future projects producing related or cumulative impacts and/or
- A summary of projections contained in an adopted general plan or related planning document that describes or evaluates conditions that contribute to the cumulative effect.

The cumulative context for most land use effects is typically localized, either within the vicinity of the project site or at the neighborhood level. For the purposes of this analysis, cumulative development in the Hub Plan area includes projects for which the department has an environmental evaluation application on file and projects that the department has otherwise determined to be reasonably foreseeable future projects (see **Table 3-2** and **Figures 3-1A** and **3-1B**, pp. 3-15 and 3-16). The areas and the projects relevant to the analysis vary, depending on the topic, as detailed in the cumulative analyses in subsequent sections of this document. As shown, these projects include primarily new residential, retail, and office uses.

For transportation analysis, as well as some noise and air quality analysis, discussed in Sections 3.B, 3.C, and 3.D, a modified set of cumulative projects was used to analyze cumulative impacts. This is because larger geographic areas are typically considered for transportation analysis, and transportation projects are included in the cumulative project list. Four of the projects in **Table 3-2**, 10 South Van Ness Avenue (Honda Site), One Oak Street, 30 Otis Street, and 42 Otis Street, are part of the cumulative list but also sites proposed for upzoning as part of the Hub Plan.

TABLE 3-2. CUMULATIVE PROJECTS²

Project	Description
1629 Market Street (1601–1637 Market Street, 1125 Stevenson Street, 53 Colton Street [Plumbers Union site]) Case No. 2015- 00584ENV	The project would demolish the existing UA Local 38 building (1621 Market Street), demolish the majority of the Lesser Brothers Building (1629–1645 Market Street), rehabilitate the Civic Center Hotel (1601 Market Street), and demolish the 242-space surface vehicular parking lots. In total, the project would construct five new buildings (ranging from four to 10 stories, 58 to 85 feet tall). The project would include 477 market-rate residential units and 107 below-market-rate supportive housing units. The project would also include construction of the 18,300-square-foot Brady Open Space at the northeast corner of Brady and Colton streets. Within the new buildings, there would be approximately 13,100 square feet of ground-floor retail/restaurant space. The project received CEQA clearance on October 19, 2017.
1700 Market Street Case No. 2013.1179E	The project would demolish an existing two-story building and construct an eight-story mixed-use residential building (up to 48 dwelling units) with approximately 1,500 square feet of ground-floor retail (85 feet tall). The project received CEQA clearance in 2014. Demolition began at the end of 2018.
South of Market Freeway Ramp Intersection Safety Study ³	In July 2019, the San Francisco County Transportation Authority (SFCTA) published the South of Market Freeway Ramp Intersection Safety Study. The purpose of this report was to make recommendations that would increase safety for road users at 10 freeway ramp intersections in the South of Market area. The study contained recommendations for two ramp locations in the Hub Plan area: the Mission Street/13 th Street/U.S. 101 northbound off-ramp and the South Van Ness Avenue/13 th Street/U.S. 101 southbound on-ramp. The study indicated that improvements at the intersection of Mission, Otis, Duboce, and 13 th streets could be funded with revenue from Market and Octavia Area Plan fees. Improvements to South Van Ness Avenue and 13 th Street would be implemented by the SFMTA in 2022 or 2023.
1740 Market Street Case No. 2014.0409E	The project would demolish an existing approximately 25,000-square-foot commercial building and construct a nine-story, 85-foot-tall mixed-use building with 110 group-housing dwelling units and approximately 7,600 square feet of ground-floor retail (85 feet tall). The project received CEQA clearance in 2016.

² The list of cumulative projects was prepared at the time of publication of the NOP for the EIR (May 23, 2018). This list was updated in October 2018 and February 2019.

³ In June 2019, the department became aware of this report. These recommendations were not modeled as part of the Hub's SF CHAMP 2040 Model, and therefore, the recommendations for the SoMa Ramp Intersection Safety Study are not included in this EIR's cumulative impact analysis. The SFCTA study recommends that as part of the Mission, Otis, Duboce and 13th Street intersection, Otis Street be maintained as a one-way street. This EIR analyzes a two-way Otis Street as part of the Hub Plan streetscape and street network improvements. The two-way Otis Street configuration is anticipated to be more impactful in terms of noise, air quality, and transportation impacts. Therefore, this EIR has analyzed a more conservative version of the proposed Hub streetscape and street network improvements.

TABLE 3-2. CUMULATIVE PROJECTS²

Project	Description
1601 Mission Street (Tower Car Wash) Case No. 2014.1121ENV	The project would demolish the existing gas station facilities and construct a 120-foot-tall, 12-story mixed-use building containing up to 220 dwelling units, 7,336 square feet of retail space, and up to 97 below-grade vehicular parking spaces that would be accessed from South Van Ness Avenue. The building would be 140 feet tall, including 20 feet for a mechanical penthouse and solarium. The project received CEQA clearance in 2016.
10 South Van Ness Avenue (Honda Site) Case No. 2015-004568ENV	The project would demolish an existing two-story building and construct a mixed-use residential building with up to 984 residential units, retail space on the ground floor, and two below-grade levels for vehicular parking and loading activities (up to 518 vehicular parking spaces and seven freight loading spaces), which would be accessed from a single curb cut and driveway on 12 th Street. Two project design options are being considered: the "project," a two-tower design with two separate 41-story, 400-foot-tall towers (420 feet to the top of the elevator penthouses) on top of podiums, and the "single tower project variant," a single 55-story, 590-foot-tall tower (610 feet to the top of the elevator penthouses) on top of a podium. The project would include approximately 48,000 square feet of usable open space, including an approximately 3,000-square-foot mid-block alley that would provide a connection for people walking between South Van Ness Avenue and 12 th Street; the single tower project variant would include approximately 47,000 square feet of open space and the mid-block alley for people walking. The project is currently undergoing environmental review.
One Oak Street (formerly 1500–1540 Market Street) Case No. 2009.0159E	The project would demolish two existing buildings and construct a 39-story mixed-use residential building (400 feet tall plus a 20-foot-tall parapet, for a total height of 420 feet). The project would include a total of 320 residential units, approximately 13,000 gross square feet of retail/restaurant uses on the ground floor and potentially the 21 st floor, and 160 accessory vehicular parking spaces for building residents. The project received CEQA clearance on June 15, 2017.
30 Otis Street Case No. 2015-010013ENV	The project would demolish the existing buildings and construct an approximately 27-story, 250-foot-tall (plus a 20-foot-tall parapet) mixed-use building. The project would include up to 354 dwelling units. Approximately 13,000 square feet of space on the ground floor would be used by the City Ballet School, which currently operates onsite. In addition, the ground floor would have approximately 4,600 square feet of retail space. The project received CEQA clearance on September 27, 2018. Demolition began at the end of 2018.
42 Otis Street Case No. 2016-005406ENV	The project site contains a two-story industrial building on an approximately 4,100-square-foot lot; the building is currently used as commercial space. The project would replace the existing building with a 15,805-square-foot, five-story, 55-foot-tall mixed-used building (63 feet tall with elevator penthouse). The proposed building would have 24 single-occupancy residential units on the upper floors and 1,900 square feet of ground-floor commercial space fronting Otis Street. No off-street vehicular parking would be provided. The project received CEQA clearance February 23, 2018.

TABLE 3-2. CUMULATIVE PROJECTS²

Project	Description
200–214 Van Ness Avenue (San Francisco Conservatory of Music Mixed-Use Project) Case No. 2015-012994ENV	The project would demolish two buildings, a three-story building with 27 dwelling units (200 Van Ness Avenue) and a two-story building, approximately 12,400 gross square feet, with vacant offices that were previously occupied by the Lighthouse for the Blind (214 Van Ness Avenue). The project would merge the two sites and construct a 12-story mixed-use building to provide housing and other facilities for the San Francisco Conservatory of Music. The proposed building would have approximately 113 units (420 beds), three faculty housing units, 27 housing units to replace the 27 existing units at 200 Van Ness Avenue, approximately 49,600 gross square feet of institutional uses, approximately 4,320 gross square feet of broadcast studio space, and 5,000 gross square feet of restaurant space. The new building would be 120 feet tall, with an additional 12 feet for rooftop architectural features and another 2.5 feet for rooftop mechanical equipment (total height of 134.5 feet). The project would include two underground levels for bicycle storage, institutional spaces, and mechanical equipment. No vehicular parking is proposed. The project received CEQA clearance in January 2018 and is under construction.
Parcel M (300 Octavia Street) (Assessor's Block 0832/026) and Parcel N (350 Octavia Street) (Assessor's Block 0832/025) Case No. 2014-002330ENV	The project site consists of two discontinuous vacant lots along the east side of Octavia Street, between Fell and Oak streets. Parcel M is an approximately 2,200-square-foot lot with frontages on Fell, Octavia, and Hickory streets; Parcel N is an approximately 2,300-square-foot lot with frontages on Oak, Octavia, and Hickory streets. The project includes construction of two 55-foot-tall (70 feet with elevator penthouse), five-story mixed-use buildings, approximately 15,400 square feet in size, with 12 residential units over approximately 800 square feet of ground-floor commercial use. No off-street vehicular parking is proposed. The project includes installation of a corner bulb-out at the southeast corner of Octavia and Fell streets. The project received CEQA clearance in January 2016.
Parcel T/188 Octavia Street (Assessor's Block 0853/033, 034, and 022) Case No. 2014.1509ENV	The project would construct a five-story, 55-foot-tall (71 feet with elevator penthouse) mixed-use building with up to 26 dwelling units above ground-floor commercial space. No off-street vehicular parking is proposed. The project received CEQA clearance in March 2017.
Parcel O (455 Fell Street) (Assessor's Block 0831/024) Case No. 2015-002837ENV	The 100 percent below-market-rate housing project would provide approximately 108 below-market-rate apartment dwelling units, approximately 1,200 square feet of ground-floor retail space, approximately 2,000 square feet of office space, and approximately 2,900 square feet for community activities; vehicular parking would not be provided. The building would be 60 feet tall, including the elevator penthouse. The project would include a mid-block passage for people walking that would connect Oak and Fell streets and align with a similar mid-block passage for people walking that would be constructed as part of the Parcel P project, a 182-unit mixed-use development in Hayes Valley. The project received CEQA clearance in 2016.
Parcel R and Parcel S (Assessor's Block 0838/034, 035, 093–096) Case No. 2014.1322ENV	The project would redevelop each existing vacant lot into a mixed-use project, consisting of two buildings with 100 percent below-market-rate housing (up to 56 dwelling units) and approximately 7,500 square feet in each building for ground-floor neighborhood-serving retail. The building would be 55 feet tall, not including the elevator penthouse. The project would partially satisfy the offsite below-market-rate requirement for the multi-family One Oak Street Project. The project is currently undergoing environmental review.

TABLE 3-2. CUMULATIVE PROJECTS²

Project	Description
1245 Folsom Street Case No. 2015-014148ENV	The project would demolish the existing one-story building and construct a seven-story building at Folsom Street and a five-story mixed-use building at Ringold Street. It would include 37 residential units above ground-floor commercial space, with vehicular parking in a basement level. The project received CEQA clearance September 21, 2018.
1228 Folsom Street Case No. 2014.0964ENV	The project would merge three lots into one lot, demolish the existing 16,450-square-foot building, and construct a new 41,440-square-foot, mixed-use building containing 24 residential units and 1,110 square feet of ground-floor commercial use. The building would be 65 feet tall (79 feet tall with elevator penthouse) and six stories on its Folsom Street frontage and 45 feet tall and four stories on its Clementina Street frontage. The project received environmental clearance in November 2016.
1695 Folsom Street Case No. 2015-012878ENV	The project would construct a five-story building with four dwelling units and one basement level. The project is currently undergoing environmental review.
1500–1528 15 th Street Case No. 2016-011827ENV	The project would demolish an existing automotive sales office, smog check facility, and vehicular parking area to construct an eight-story, 62,100-square-foot building with 1,300 square feet of ground-floor retail and 184 group housing units (up to 75 feet tall). No off-street vehicular parking is proposed. The project is currently undergoing environmental review.
198 Valencia Street Case No. 2013.1458E	The project would demolish an existing one-story, 1,900-square-foot oil change facility and surface vehicular parking lot with seven off-street vehicular parking spaces and construct a five-story, 55-foot-tall, 33,795-gross-square-foot mixed-use building (6,269 gross square feet of ground-floor commercial space and a subterranean garage to accommodate 19 off-street vehicular parking spaces) with 28 residential units (16 one-bedroom units and 12 two-bedroom units) on the first through fourth floor. The project received environmental clearance in June 2016.
1870 Market Street Case No. 2014.1060ENV	The project would demolish a vacant single-story, 600-gross-square-foot commercial building and a four-vehicle surface vehicular parking lot and construct an approximately eight-story, 85-foot-tall (with an additional 16 feet for the mechanical and staircase penthouses) mixed-use development. The approximately 16,300-gross-square-foot building would be comprised of approximately 12,900 gross square feet of residential space and 400 gross square feet of ground-floor commercial space. The proposed project would provide approximately 10 dwelling units. No off-street vehicular parking is proposed. The project received environmental clearance in September 2017.

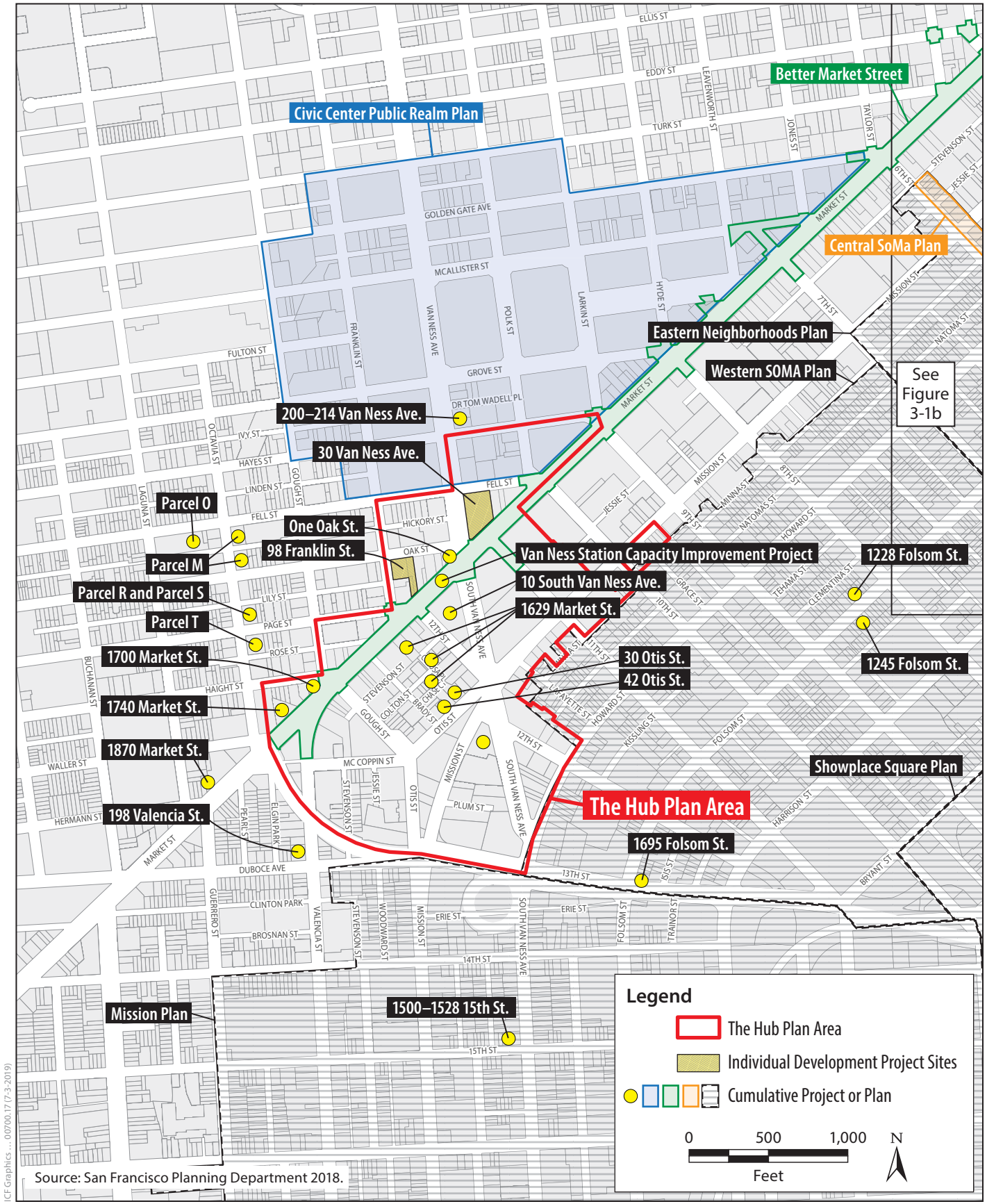
TABLE 3-2. CUMULATIVE PROJECTS²

Project	Description
Better Market Street (BMS) Case No. 2014. 0012E	San Francisco Public Works, in coordination with the department and MTA, would provide various transportation and streetscape improvements along the 2.2-mile segment of Market Street between Steuart Street and Octavia Boulevard. The project would introduce changes to the roadway configuration as well as private vehicle access, traffic signals, surface transit (including San Francisco Municipal Railway-only lanes, stop spacing and service, stop locations, stop characteristics, and infrastructure), bicycle facilities, pedestrian facilities, streetscapes, commercial and passenger loading, vehicular parking, and utilities. The project would also change traffic configurations on adjacent streets that intersect Market Street to both the north and the south. In addition to the proposed project, the project sponsor is considering one project variant: the Western Variant. The variant would be located within a portion of the same corridor as the proposed project but would vary in terms of proposed improvements/regulations for discrete portions of the corridor. The Western Variant would include the approximately 0.6-mile portion of Market Street between Octavia Boulevard and a point approximately 300 feet east of the Hayes and Market Street intersection. The Western Variant seeks improvements beyond those of the proposed project related to pedestrian and bicyclist safety, comfort, and mobility through additional reductions to conflicts between different modes of transportation. The project is currently undergoing environmental review.
Central South of Market (SoMa) Plan Case No. 2011. 1356E	The Central SoMa Plan (formerly, Central Corridor Plan) is a comprehensive plan for the area surrounding much of the southern portion of the Central Subway transit line, a 1.7-mile extension of the Third Street light-rail line, which will link the Caltrain depot at Fourth and King streets to Chinatown and provide service within the SoMa area. The Central SoMa Plan area includes roughly 230 acres, comprising 17 city blocks, as well as the streets and thoroughfares that connect SoMa to its adjacent neighborhoods: Downtown, Mission Bay, Rincon Hill, and the Mission District. The Central SoMa Plan would rezone the area for a variety of land uses, including residential and retail, and increase height limits in some areas. The Central SoMa Plan would also propose improvements for streets and open spaces in the area. The Central SoMa Plan was approved on December 4, 2018.
The Civic Center Public Realm Plan Case No. 2015-000937ENV	The Civic Center Public Realm Plan proposes medium- and long-term improvements to Civic Center's plazas, streets, and other public spaces. The plan is an interagency effort managed by the department in partnership with multiple City agencies. The Public Realm Plan is part of the City's larger Civic Center initiative to improve the area as both a neighborhood gathering space and a public commons.

TABLE 3-2. CUMULATIVE PROJECTS²

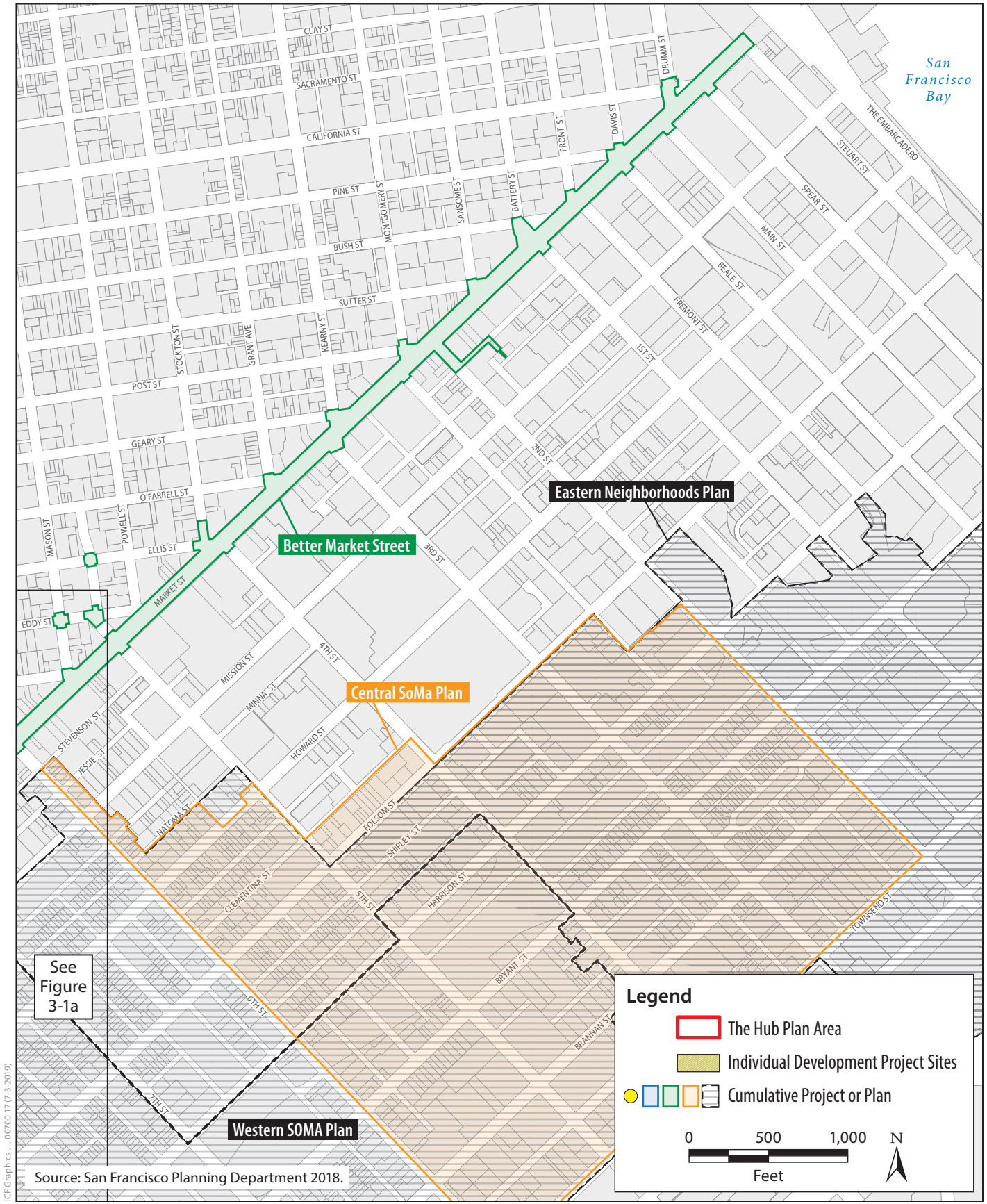
Project	Description
Van Ness Station Capacity Improvement Project	The SFTMTA proposes to improve access at the Van Ness Avenue San Francisco Municipal Railway (Muni) station. Improvements at the Van Ness Avenue Muni station would generally include street-to-mezzanine circulation improvements, including additional or replacement elevators, stairs, escalators, and portal canopies; mezzanine-to-platform circulation improvements, including additional or replacement elevators, stairs, and escalators; wayfinding and other signs at street level and within the station; upgrades to booths for station agents and fare gates; platform improvements to support operations; and platform improvements to improve comfort and security for passengers. The project is not yet under environmental review.
Eastern Neighborhoods Rezoning and Area Plans Case No. 2004.0160E	The Eastern Neighborhoods Rezoning and Area Plans enabled about half of the area's industrial lands to transition to zoning that allows new housing and provided policies and mechanisms that ensured "complete neighborhoods" as a result of new growth. The San Francisco Planning Commission certified the final EIR in August 2008, and the San Francisco Board of Supervisors adopted the plan in January 2009.
The West South of Market (SoMa) Plan Case Nos. 2008.0877E and 2007.1053E	Originally part of the Eastern Neighborhoods planning process, Western SoMa was defined as a separate area in 2004. The San Francisco Planning Commission certified the final EIR in December 2012, and the San Francisco Board of Supervisors adopted the Western SoMa Area Plan in March 2013. The proposed project consists of three components: 1) adoption of the Western SoMa Community Plan, 2) the rezoning of 46 parcels with 35 lots, and 3) development of the privately funded mixed-use project proposed at 350 Eighth Street.

Source: San Francisco Planning Department 2018.



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3-1a
Cumulative Projects



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3-1b
Cumulative Projects

3.A CULTURAL RESOURCES

INTRODUCTION

DEFINING CULTURAL RESOURCES

The term “cultural resources” refers to built-environment resources, archaeological resources, and human remains. Tribal cultural resources and paleontological resources are discussed in separate sections in the initial study (Appendix B). In this section of the environmental impact report (EIR), the term “built-environment resources” is used to distinguish built resources (i.e., buildings, structures, objects, districts) from archaeological resources. A “historical resource”¹ is defined in California Environmental Quality Act (CEQA) section 21084.1 and CEQA Guidelines section 15064.5 as one that meets at least one of the following criteria:

- A resource listed in, or determined by the State Historical Resources Commission to be eligible for listing in, the California Register of Historical Resources shall be considered to be historically significant (Public Resources Code section 5024.1, title 14 California Code of Regulations [CCR], section 4850 et seq.);
- A resource included in a local register of historical resources, as defined in Public Resources Code section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of Public Resources Code section 5024.1(g) shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing in the California register (Public Resources Code section 5024.1, title 14 CCR, section 4852).

A lead agency is allowed to determine that a resource may be a historical resource, as defined in Public Resources Code sections 5020.1(j) or 5024.1, even if it is not listed in, or determined to be eligible for listing in, the California register; not included in a local register of historical resources, pursuant to Public Resources Code section 5020.1(k); or identified in a historical resources survey meeting the criteria of Public Resources Code section 5024.1(g).

¹ Under CEQA, archaeological resources are called “historical resources,” whether they are of historic or prehistoric age.

Articles 10 and 11 of the San Francisco Planning Code established historic registers in San Francisco that qualify as local registers under CEQA. In addition, the City of San Francisco (City) has adopted several historic resource surveys, which list other CEQA historical resources in the city that may or may not be listed under articles 10 or 11. As relevant to this EIR, these surveys are discussed below.

OUTLINE OF THIS SECTION

This section describes the cultural resources that have the potential to be affected by the Hub Plan,² two individual development projects, and Hub Housing Sustainability District (HSD); identifies any built-environment resources as defined under CEQA; assesses the potential for encountering significant archaeological resources and human remains based on documentary research and geoarchaeological studies; and evaluates potential impacts on those resources that would result from the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD and cause a significant impact on historical resources. In support of the analysis, this section first describes the prehistoric and historic setting of the Hub Plan area, then presents information on cultural resources that are known to be located in the Hub Plan area, in addition to a discussion of the archaeological sensitivity in the Hub Plan area. This section then evaluates whether the land use changes and streetscape and street network improvements proposed under the Hub Plan, as well as the two individual development projects and the Hub HSD, have the potential to cause a substantial adverse change in any historical resource. According to CEQA Guidelines section 15064.5(b), a project is considered to have a significant effect on the environment if it causes a substantial adverse change in the significance of a historical resource. Mitigation measures are provided in order to reduce or avoid identified significant impacts on historical resources.

The City received no comments regarding cultural resources on the notice of preparation (NOP) (Appendix A) issued for the Hub Plan, the two individual development projects, and the Hub HSD.

ENVIRONMENTAL SETTING

The Hub Plan area is located at the juncture of the Downtown/Civic Center, South of Market (SoMa), Western Addition, and Mission neighborhoods of San Francisco. Elevations across the Hub Plan area range from 25 to 100 to feet above mean sea level, with the lowest point (25 feet above mean sea level) at the bottom of a subtle basin centered at the intersection of Mission Street and South Van Ness Avenue.

² The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

The environmental setting of the Hub Plan, two individual development projects, and the Hub HSD consists of the prehistoric and historic contexts, as well as a description of the known historical built-environment resources and archaeological sensitivity within the CEQA study area, which is the area where potential impacts could occur. The CEQA study area encompasses the entirety of the Hub Plan area and extends beyond the Hub Plan area to include any additional parcels that are adjacent to the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, both of which are at the border of the Hub Plan area. The CEQA study area also includes the roadways outside of the Hub Plan area where streetscape and street network improvements are proposed under the Hub Plan and 98 Franklin Street Project. One historic district that is adjacent to the boundaries of the Hub Plan area, the Elgin Park-Pearl Street Reconstruction Historic District, does not overlap with the CEQA study area but is analyzed for impacts in this section because the potential exists for its setting to be altered. The CEQA study area and locations of historical built-environment resources are shown in **Figure 3.A-1**, p. 3.A-20. Archaeological sensitivity analysis is limited to the Hub Plan area, a smaller area than the CEQA study area delineated for purposes of assessing built-environment resources.

This section describes the geological, archaeological, and historical setting of the Hub Plan area, as based on the Archaeological Research Design and Treatment Plan (ARDTP).³

GEOLOGICAL CONTEXT

This section describes the geology of the Hub Plan area and the environmental factors considered in performing the archaeological sensitivity analysis of buried prehistoric resources. The Hub Plan area is on the San Francisco Peninsula, which is part of the Coast Range geomorphic province. The San Francisco Peninsula is bounded by the Pacific Ocean to the west, the San Francisco Bay and Central Valley to the east, and the northern extent of the Santa Cruz Mountains to the south. The peninsula formed as a result tectonic pressure, faulting, and deformation along the boundary between the Pacific plate and North American plate approximately 150 million years ago and 66 million years ago. Sea-level change, as a result of glacial advancement and recession, has resulted in multiple periods of substantial sediment deposition on the San Francisco Peninsula. Between 120,000 and 8,000 years ago, dune sands and riverwash marshes deposited sediments, collectively referred to as the Colma formation. Since then, rising sea levels and winds have formed tidal flats and sand dunes in the Hub Plan area, with occasional marshes forming in the troughs between the sand dunes. Development during the 19th century produced widespread fill across the Hub Plan area.

³ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, prepared for the San Francisco Planning Department, December 2018, pp. 3-1 to 3-32. This document contains sensitive archaeological information and is confidential.

PREHISTORIC CONTEXT

Cultural developments in the San Francisco Bay Area have been summarized by numerous archaeologists. These summaries have divided the prehistoric cultural sequence into multiple phases or periods, which are delineated by changes in regional patterns of land use, subsistence, and tool types over time. The most recent chronologies encompass a time period that ranges from approximately 13,500 to 170 calibrated years before present (cal BP). The early periods of this section’s chronology are based on recent research from along the California Coast,^{4,5,6} while the later periods of this chronology are based on the time periods proposed by Groza et al.,⁷ with additional information integrated from the previous chronologies described below. The sequence includes six periods, which are briefly summarized in **Table 3.A-1**. These periods are academic constructs and do not necessarily reflect Native American viewpoints.

TABLE 3.A-1. SAN FRANCISCO PENINSULA PRECONTACT CULTURAL CHRONOLOGY

Period	Time Range (cal BP)	Diagnostic Site Attributes	Land Use Pattern
Terminal Pleistocene	13,500–11,600	Large stone bifaces and bone technology. Fluted stone bifaces, attributed to the Clovis culture, occur during this period.	Uplands, inland valleys
Early Holocene	11,600–7,700	Appearance of hand stones and milling slabs, large flaked cores and cobble tools, flake tools (stemmed points, crescents, and steep-edged), and bifaces.	Inland valleys
Middle Holocene	7,700–3,800	Ground stone; side-notched dart points; cobble (large stone-sized) chopping, scraping, and pounding implements; as well as shell beads and ornaments.	Uplands with occasional bay margin resources

⁴ Byrd, B. F., P. Kaijankoski, J. Meyer, A. Whitaker, R. Allen, M. Bunse, and B. Larson, *Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area*, San Francisco, California, prepared for the San Francisco Planning Department, 2010.

⁵ Erlandson, J. M., T. C. Rick, T. L. Jones, and J. F. Porcasi, *One if by Land, Two if by Sea: Who Were the First Californians?* In (Ed. T. L. Jones and K. A. Klar) *California Prehistory: Colonization, Culture, and Complexity*. Alta Mira Press, Lanham, MD, 2007.

⁶ Rick, T. C., J. M. Erlandson, and R. L. Vellanoweth, Paleocoastal Marine Fishing on the Pacific Coast of the Americas: Perspectives from Daisy Cave, California. *American Antiquity* 66:595–614, 2001.

⁷ Groza, R. G., J. Rosenthal, J. Southon, and R. Milliken, A Refined Shell Bead Chronology for Late Holocene Central California. *Journal of California and Great Basin Anthropology* 31:13–32, 2011.

TABLE 3.A-1. SAN FRANCISCO PENINSULA PRECONTACT CULTURAL CHRONOLOGY

Period	Time Range (cal BP)	Diagnostic Site Attributes	Land Use Pattern
Early Period of the Late Holocene	4,500/3,800– 2,450	Establishment of several large shell mounds and appearance of stemmed and short broad-leaf projectile points, square-based knife blades, both unshaped and cylindrical mortars, cylindrical pestles, crescentic stones, perforated charmstones, bone awls, polished ribs, notched and grooved net sinkers, rectangular and spired <i>Olivella</i> beads, rectangular abalone beads, various pendant types, antler wedges, and stone bars or “pencils.”	Bay margins and uplands
Middle Period of the Late Holocene	2,050–900	Greater settlement permanence, mound building, and increasing social complexity and ritual elaboration. New artifact types include barbless and single-barbed bone fishing spears, large mortars, ear spools (or adornments), and varied forms of <i>Haliotis</i> and <i>Olivella</i> shell ornaments.	Bay margins and uplands
Late Period of the Late Holocene	700–170	Clamshell disk beads, distinctive <i>Haliotis</i> shell pendants, flanged steatite pipes, chevron-etched bone whistles and tubes, “flower pot” mortars, coiled basketry awls, as well as bow and arrow technology.	Bay margins and uplands

Source: ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, prepared for the San Francisco Planning Department, December 2018, pp. 3-9 to 3-11. This document contains sensitive archaeological information and is confidential.

cal BP = calibrated years before present

Across the U.S., the Terminal Pleistocene is generally considered to be represented by wide-ranging hunters and gatherers who periodically exploited large game. Archaeological sites from this period typically comprise very sparse lithic assemblages, with few or no archaeological features, and large, fluted projectile points. Despite archaeological sites from this period being infrequently encountered and poorly understood across the U.S., a handful of sites that appear to date to this period have been found on the periphery of the Bay Area, including the Borax Lake site (LAK-36), Tracy Lake, Hidden Valley, NAP-131, and Wolfsen Mound (MER-215).

The Early Holocene (11,600–7,700 cal BP) landscape of central California⁸ is characterized by the semi-mobile hunter-gatherers who exploited a wide range of food resources from marine, lacustrine, and terrestrial contexts. However, the sample of prehistoric archaeological sites is

⁸ Located in the middle of the state, central California includes Fresno, Modesto, Salinas, Visalia, Clovis, Merced, Turlock, Madera, Tulare, Porterville, and Hanford counties.

limited in the Bay Area and therefore most likely represents an incomplete picture of local prehistoric land use during this period. The four dated Early Holocene sites in or near the Bay Area consist of two sites at Los Vaqueros Reservoir in the East Bay (CA-CCO-696 and -637), the Blood Alley Site (CA-SCL-178) in the Coyote Narrows of the Santa Clara Valley, and CA-SCR-177 at Scott's Valley in the Santa Cruz Mountains. All of the sites identified above were recovered from buried terrestrial contexts.

The Middle Holocene (7,700–3,800 cal BP) is characterized by a diverse range of habitation sites and artifact assemblages, which suggest higher population levels, more complex adaptive strategies, and longer seasonal occupation than that during the Early Holocene. More than 30 Bay Area archaeological sites have produced radiocarbon dates that indicate occupation during this time segment, including ALA-483 in the Livermore Valley, the Marsh Creek site (CA-CCO-18/548) in the northern Diablo Range, and MRN-17 on de Silva Island in Richardson Bay. Several isolated human burials, including three on the San Francisco Peninsula (CA-SFR-28, CA-SFR-205, and CA-SMA-273), have also been dated to the Middle Holocene.

The majority of the archaeological sites discovered on the San Francisco Peninsula, with more than 200 documented, date to the Late Holocene (3,800–170 cal BP). The Late Holocene is generally divided into the following three main sub-periods: Early (4,500/3,800–2,450 cal BP), Middle (2,050–900 cal BP), and Late (700–170 cal BP); with two transitional sub-periods: Early-Middle Transition (2,450–2,050 cal BP), and Middle-Late Transition (900–700 cal BP). The Middle and Late periods have been further subdivided into four and two subdivisions, respectively, based largely on the dating of specific types of shell beads.

The Early Period of the Late Holocene marks the establishment of several large shell mounds. Prominent sites along the bay margins that have produced particularly early dates, encompassing dates at the end of the Middle Holocene, include University Village (CA-SMA-77), the Ellis Landing site (CA-CCO-295), the San Bruno mound (CA-SMA-40), the Stege mound (CA-CCO-298), the West Berkeley mound (CA-ALA-307), and CA-ALA-17 (no common name provided).

The Middle Period of the Late Holocene is characterized by greater settlement permanence (either sedentary or multi-season occupation), mound building, and increased social complexity and ritual elaboration. Carbon dating from nine sites within San Francisco (CA-SFR-4, CA-SFR6/26, CA-SFR-112 through CA-SFR-114, CA-SFR-129, CA-SFR-147, CA-SFR-171, and CA-SFR-175) suggest increased occupation of the San Francisco Peninsula during this period.

Although the Late Period of the Late Holocene is the best documented Late Holocene division throughout the greater Bay Area, it is represented by only two sites, CA-SFR-171 and CA-SFR-154, both located in San Francisco County. Both appear to be representations of smaller seasonal or special-use areas. Radiocarbon dating and obsidian hydration samples taken from material found at CA-SFR-171 indicate an occupation period between 500 and 550 cal BP. Archaeological investigations at CA-SFR-154 uncovered a 40-centimeter-thick midden deposit beneath dune

sands and historic debris. This deposit is thought to be associated with the ethnographically identified village known as *Sitlintac*. Dating methods indicate that occupation at CA-SFR-154 may have extended into the Mission Period.

HISTORIC CONTEXT

This subsection, describing the historic-period context of the Hub Plan area, is based on the ARDTP and Department of Parks and Recreation (DPR) site record forms completed for the Hub Plan built-environment survey, which are included in Appendix C.

SPANISH AND MEXICAN PERIODS

Explorations of the Bay Area by the Spanish began in 1769. In 1776, Juan de Bautista de Anza led a party from Monterey into what is now San Francisco to explore settlement locations. Anza chose the site of today's Fort Point for a new Spanish garrison, or presidio, and chose a creek location approximately 3 miles to the southeast, which he named Arroyo de los Dolores, for a new mission. Under the Spanish and subsequent Mexican governing of San Francisco, the Hub Plan area was not the site of settlement or development. Mission cattle very likely grazed there periodically, and a horse trail approximating today's Mission Street extended from the anchorage at Yerba Buena cove upslope toward the mission through a landscape of hills that were covered by bush and scrub oaks. In 1847, Jasper O'Farrell, Surveyor General of Alta California, was commissioned to conduct a land survey of San Francisco. O'Farrell's survey resulted in the creation of Market Street as San Francisco's main artery, paralleling the old horse trail between the cove and the mission, which became Mission Street. North of Market Street, O'Farrell expanded an earlier 12-block, 50-vara (a 33 $\frac{1}{3}$ -inch Spanish equivalent to the yard) grid to the south and west, with streets running in cardinal directions. South of Market Street, O'Farrell created a grid of larger 100-vara blocks, intended for agricultural use, with streets aligned northeast, northwest, southeast, and southwest rather than cardinally. Subsequent survey work extended the smaller block sizes north of Market Street to the west and into today's Hayes Valley.^{9,10,11,12}

⁹ ICF, *Archaeological Sensitivity Assessment for the Better Market Street Project, San Francisco, California*, prepared for the San Francisco Planning Department, October 2015, pp. 40 and 41.

¹⁰ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, pp. 22 to 26.

¹¹ ICF, *Cultural Landscape Evaluation, Better Market Street Project, Market Street, San Francisco, California*, prepared for San Francisco Public Works, November 2016, pp. 4-2 and 4-3.

¹² U.S. Coast Survey, *City of San Francisco and Its Vicinity*, from a trigonometrical survey by R.D. Cutts, assistant; topography by A.F. Rodgers, sub-assistant; hydrology by the party under the command of Lieutenant James Alden, U.S.N., assistant, Washington, D.C., 1853.

GOLD RUSH PERIOD TO 1906 DISASTER

Although San Francisco expanded with development activity as a result of the 1848 Gold Rush, it took several decades for industrial and residential development to extend into the area that would become the Hub Plan area. Despite plank roads between the bay and the mission along Mission and Folsom streets in the mid-1850s, the Hub Plan area remained a landscape of hills and dunes into the 1860s. A tract of 160 acres containing a low-lying area at the western edge of the current-day Hub area was acquired by Thomas Hayes around 1850. Now known as Hayes Valley, this area contained coast live oaks that distinguished it from surrounding portions of the Hub Plan area that were covered in sand dunes. Hayes initially attempted to farm his land but soon turned to the idea of subdividing it for residential development, which took off the following decade once improvements to rail transit made Hayes Valley more accessible from central San Francisco. In 1866, City Order 1684 established street lines and grades west and south of Ninth and Larkin streets, across today's Hub area and into areas farther south and west.^{13,14} Subsequent cut-and-fill activity transformed the landscape and facilitated urban development.

The name "Hub" was a result of transportation development. During the 1860s, the first commuter streetcar lines crossed the area that would become the Hub Plan area along Market Street and Howard Street. The San Francisco and San José Railroad, constructed during the early part of the decade and the first rail line to connect the two cities, originally terminated near Market and Valencia streets. Although the line would subsequently bypass Valencia Street, its acquisition by the Market Street Railroad Company led to the establishment of shared terminal and shop facilities south of Market Street, east of Valencia Street, and west of Mission Street.^{15,16} During the early 1880s, the Central Pacific Railroad acquired the Market Street Railroad Company, converted it to a cable car system, and renamed it the Market Street Cable Railway. The company also developed its main powerhouse complex on the terminal site south of Market Street and east of Valencia Street. The system was later converted to electric power and renamed the Market Street Railway Company, then subsequently renamed the United Railroads of San Francisco. Owing to the rail facilities and the convergence of

¹³ M. M. O'Shaughnessy, *Official Grades of the Public Streets of the City and County of San Francisco, Comprising All Grades Established to December 31, 1912*, San Francisco: City and County of San Francisco, 1912, pp. 3 and 4.

¹⁴ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, pp. 22 to 37.

¹⁵ ICF, *Archaeological Sensitivity Assessment for the Better Market Street Project, San Francisco, California*, prepared for the San Francisco Planning Department, October 2015, pp. 49 and 50.

¹⁶ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, p. 36.

streetcar lines at Valencia and Market streets that conveyed riders between downtown San Francisco and outlying neighborhoods, the surrounding neighborhood was known as “the Hub” by the 1880s and into the 1940s.^{17,18}

Once a peripheral location of weekend resorts and other leisure venues that were visited by residents of urbanized San Francisco, the Hub Plan area retained a suburban character until the 1880s when residential and industrial development resulted in greater urban density. By the turn of the century, a dense stock of mostly wood-framed residential, commercial, and industrial buildings occupied the majority of the blocks within the Hub Plan area.^{19,20}

RECONSTRUCTION AND DEVELOPMENT THROUGH THE MID-20TH CENTURY

On April 18, 1906, a major earthquake struck the Bay Area. The earthquake’s impact was worsened by liquefaction in areas that had been reclaimed through filling. Numerous masonry buildings were destroyed or damaged, along with older, generally smaller frame buildings. With water mains broken across the city, fires and eventually firestorms were fed by unseasonably warm weather and winds for three days immediately following the earthquake. Fire swept through those portions of the Hub Plan area east of Gough Street, devastating a large portion of the city and destroying an estimated 28,000 buildings overall. Many buildings that might have survived the earthquake alone were destroyed by fires or had to be demolished in the aftermath. The brick powerhouse chimney at the United Railroads terminal site collapsed. The disaster produced an enormous amount of debris. Workers laid railroad lines down Market Street and other streets to facilitate rubble removal, which took many months.²¹

Post-disaster reconstruction took place quickly along Market Street and in some residential enclaves but longer in the SoMa area. Commercial, residential, and mixed-use buildings constructed from 1906 to 1913 represented 60 percent of the surviving building stock along Market Street in 2011.²² Beyond Market Street, the need for shelter, including lower-cost wood-framed buildings (compared to masonry structures), led many San Franciscans to

¹⁷ John Horn, Market Street Hub Neighborhood Historical Essay, 2018, http://www.foundsf.org/index.php?title=Market_Street_Hub_Neighborhood, accessed April 24, 2018.

¹⁸ ICF, *Archaeological Sensitivity Assessment for the Better Market Street Project, San Francisco, California*, prepared for the San Francisco Planning Department, October 2015, pp. 49 to 57.

¹⁹ R. W. Olmstead, Historical Overview, Chapter 3, in *California Department of Transportation, San Francisco Central Freeway Replacement Project—Alternative 8B: Archaeological Research Design and Treatment Plan City and County of San Francisco, CA, 2002*, p. 80.

²⁰ Sanborn Fire Insurance Company, *Sanborn Fire Insurance Company Maps*, 1899, 1905.

²¹ ICF, *Archaeological Sensitivity Assessment for the Better Market Street Project, San Francisco, California*, prepared for the San Francisco Planning Department, October 2015, pp. 57 to 58.

²² Tim Kelley Consulting, LLC, *Draft Historic Context Statement, Mid-Market Historical Survey*, prepared for the San Francisco Redevelopment Agency, June 30, 2011, p. 17.

prioritize residential reconstruction. More working class and industrial in character than areas north of Market Street, the SoMa area was rebuilt at a slower pace. Some industrialists and business owners wanted to extend a previously established fire district that required fire-resistant exteriors in the SoMa area and prohibit the densely packed frame residences that had fed the fires. Some industries and businesses simply relocated to other areas of the city.

The board of supervisors eventually decided not to extend the fire district but did institute a policy of prohibiting flammable roofing materials and requiring concrete construction for some structure types. Amid the uncertainty, many owners of smaller lots to the south of Market Street opted to sell their properties to industrialists.^{23,24}

In addition to buildings, a wide array of infrastructure had to be reconstructed across the city. Streets, sidewalks, and sewers had to be replaced or repaired. The bureau of streets reported, for example, that, by 1908, it had repaired 3,287 sewers, cleaned 66 blocks of sewers, and emptied 1,000 cesspools. By 1908, utility providers had also dug almost 16,000 “openings” in city streets to install new water, gas, and electricity lines.²⁵ Between 1908 and 1913, the City constructed the Auxiliary Water Supply System (AWSS), a multi-component emergency fire suppression water system, which is located throughout the city’s central business district and in adjacent residential neighborhoods. The AWSS was designed to withstand a major earthquake and prevent the type of cataclysmic fire that occurred in 1906. The AWSS incorporated numerous redundancies, including high-pressure water hydrants, cisterns, and a gravity-fed water distribution main that could also be pressurized by pumping stations in the event of an emergency.²⁶

INDUSTRIAL DEVELOPMENT

The Hub Plan area and its vicinity changed substantially as it recovered from the earthquake and fires. Many longstanding industries were reestablished, and community institutions such as churches were rebuilt or constructed anew at different locations. Whereas 62,000 people resided in the SoMa area in 1900, only 24,500 lived there in 1910. The trend away from residential use and toward greater industrial and commercial use in the district would

²³ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, pp. 48 to 54.

²⁴ Tim Kelley Consulting, LLC, *Draft Historic Context Statement, Mid-Market Historical Survey*, prepared for the San Francisco Redevelopment Agency, June 30, 2011, pp. 14 to 16.

²⁵ JRP Historical Consulting, LLC, *Historic-Era Context in Archaeological Research Design and Treatment Plan for the Transit Center District Plan Area, San Francisco, California*, prepared for the San Francisco Planning Department, February 2010, pp. 64 to 66.

²⁶ ICF, *San Francisco Auxiliary Water Supply System*, Department of Parks and Recreation 523 District Record, prepared for San Francisco Public Works, 2018, pp. 18 to 28.

continue for decades, reducing the number of families and increasing the number of unmarried men who resided there. The struggle over building codes and fire zone ordinances, which limited industrial redevelopment in the immediate aftermath of the 1906 disaster, was resolved in 1909 when the City and County of San Francisco finally made reinforced-concrete construction a requirement for Class A structures.²⁷ As a result, most of the industrial structures that did get constructed during the 1906–1909 period were modest one- to two-story wood- or iron-framed buildings. Several of the larger surviving industrial buildings were constructed in the decade after 1909. During the economic boom of the 1920s, industrial development dramatically accelerated across the SoMa area, resulting in construction of both modest and larger industrial buildings.^{28,29}

During the first half of the 20th century, the SoMa area’s leading industries, in terms of the number of workers employed, were (in descending order) associated with printing and publishing, apparel manufacturing, machinery, furniture, chemicals, and electrical machinery. As previously noted, the transportation industry was represented by the United Railroads facility from which the Hub Plan area derived its name. The prevalence of industrial firms accounts for the high number of reinforced-concrete buildings in the portion of the Hub Plan area south of Market Street. Urban industrialization in the Hub Plan area meant the presence of labor unions and so-called labor “temples” as well as fraternal halls that functioned as important pre-World War II social institutions for skilled workers and many managers. Although private development slowed during the Great Depression of the 1930s, larger, more resilient firms, such as the Pacific Telephone and Telegraph Company and the Coca Cola Company, constructed substantial buildings in the Hub Plan area during that decade. The SoMa area within and beyond the Hub Plan area retained its industrial character immediately following World War II. Over time, however, structural economic changes and the need to expand facilities led growth-seeking manufacturers to leave the area and relocate in suburbs, which were accessible by new freeways. By the 1970s, de-industrialization had diminished San Francisco’s manufacturing economy, and areas south of Market Street became targets of redevelopment efforts.^{30,31}

²⁷ Class A structures are those that are rated as most fireproof for fire insurance assessment.

²⁸ A. Averbach, *San Francisco’s South of Market District, 1850–1950: The Emergence of a Skid Row*, in *California History* 52, fall 1973, pp. 203 to 206.

²⁹ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, pp. 48 to 54.

³⁰ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, pp. 59 to 92.

³¹ Page & Turnbull, *Historic Context Statement, South of Market Area, San Francisco, California*, prepared for the San Francisco Planning Department, June 30, 2009, pp. 67 to 70.

RESIDENTIAL DEVELOPMENT

Framed residential buildings dating to 1906–1909 within the Hub Plan area indicate the rapidity with which some residents or landlords undertook reconstruction following the earthquake and associated fires. Such residential buildings are present in the Hub Plan area north of Market Street as well as south of Market Street on Gough, McCoppin, Jessie, and Stevenson streets. However, many residents were not as well insured as others and not able to rebuild immediately following the disaster. Still, at a time when the automobile had yet to become a mass consumer product and an important factor in reshaping the urban built environment, the presence of multiple transit lines, converging in the Hub Plan area, ensured that residential development would continue through the 1920s, with a relatively short interruption during World War I.³²

The leading type of smaller-scale residential construction within the Hub Plan area after the 1906 disaster was the two- to three-story multifamily building, or “flat.” Developers typically constructed flats with full-floor dwelling units, as opposed to multiple dwelling units on each floor of an apartment building. Builders constructed flats in several variations, including single-flat stacks; double flats, formed from parallel dwelling units on each floor; and Romeo flats, consisting of a central circulation bay and flanking stacks of flats. Compared with multifamily flats, single-family dwellings were constructed far less frequently within the Hub Plan area from 1906 through the 1920s, and very few have survived to the present. Multifamily flats and single-family residences constructed in the Hub Plan area during this period typically featured Classical Revival, Mission Revival, and Craftsman façades.³³

Larger residential buildings were also constructed in the Hub Plan area after 1906 and through the 1920s. These included larger wood-framed or masonry apartment buildings and hotels, rising to heights of three to seven stories. The larger residential buildings typically exhibited Classical Revival or Colonial Revival designs. Although larger apartment buildings often contained dwelling units that were large enough to accommodate families, the Hub Plan area also included boarding houses and single-resident-occupancy hotels, which were geared to the population of unmarried male workers who were employed by the industrial firms in the SoMa area. Single-resident-occupancy hotels typically had a single entrance to a first-story lobby, with a desk or office provided for an attendant. Mail boxes as well as commercial spaces were found across other portions of the first floor. A typical single-

³² Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, p. 53, pp. 94 and 95.

³³ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, p. 54, pp. 99 to 101.

resident-occupancy hotel dating to the first decade of post-disaster development in the Hub Plan area is the Civic Center Hotel at 1601–1605 Market Street, a five-story Classical Revival–style hotel constructed in 1915 at the southwest corner of Market and 12th streets.³⁴

Mixed-use buildings with upper apartments constitute one of the more prominent residential building types in the Hub Plan area, particularly along and near Market Street. Built in substantial numbers within the Hub Plan area and surrounding areas from 1906 through the 1920s, such buildings typically feature masonry construction, first-story commercial space, and upper apartments, reaching heights of two to seven stories. These buildings have modest first-story residential entrances but more focal first-story commercial entrances. Leading masonry examples of mixed-use buildings within the Hub Plan area include the five-story Classical Revival–style buildings at 1649–1655 Market Street and 150 Franklin Street (both 1912); the five-story Renaissance Revival–style building at 1693–1695 Market Street (1914); the Colonial Revival–style five-story building at 1666–1669 Market Street (1913); the seven-story Classical Revival–style Miramar Apartments at 20 Franklin Street/1580–1595 Market Street, on the east side of Franklin Street north of the intersection of Market and Page streets (1917); and the six-story Renaissance Revival–style Gaffney Building at 1670 Market Street (1923).^{35,36}

Residential development slowed dramatically within the Hub Plan area, as it did in much of San Francisco, during the Great Depression. Later, material shortages prohibited new residential construction during and after World War II. In the 1950s and 1960s, most residential construction remained limited to redevelopment projects and infill. Here and there, property owners demolished older residential buildings and constructed modern stucco-clad apartment buildings with below-grade vehicular parking. These were known as “dingbats.” However, San Francisco’s typically modest lot sizes prohibited the degree of dingbat development that occurred in other highly urbanized areas of California.³⁷

AUTOMOBILE-ORIENTED TRANSPORTATION AND COMMERCIAL DEVELOPMENT

One of the earliest automobile-related businesses in the Hub Plan area was the Thomas B. Jeffery Company, a Rambler retailer that occupied the three-story masonry building at 56–70 12th Street, constructed in 1912. Automobile-related development accelerated and began reshaping portions

³⁴ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, p. 54, pp. 96 and 97.

³⁵ City of San Francisco, *Market Street Masonry Discontiguous District Revised Draft, Article 10 Landmark Designation Report*, September 12, 2012, pp. 5 to 42.

³⁶ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, p. 104.

³⁷ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, p. 95.

of the Hub Plan area in the 1930s as construction of the Golden Gate Bridge and the San Francisco-Oakland Bay Bridge (Bay Bridge) signaled the growing importance of automobile travel and the decline of rail service.

Beginning in 1926, Van Ness Avenue was extended south of Market Street to cut laterally through several city blocks and thereby create a new segment (i.e., South Van Ness Avenue) between Market Street and what became the southwestern terminus of Howard Street.

B.M. Rastall, an industrial engineer employed by the San Francisco Chamber of Commerce, devised a plan for extension of Van Ness Avenue. The board of supervisors adopted Rastall's plan, resulting in the avenue's present diagonal alignment. The first block, between Market and Mission streets, was completed in 1926.³⁸ Construction of this section led to real estate speculation along the corridor. By the late 1920s, the project, called the Van Ness Avenue Extension, fueled ambition for a north-south through route, connecting Fort Mason to Army Street (now Cesar Chavez Street) and beyond. A boulevard improvements bond in 1927 helped pay for the remaining section.

The Great Depression, as well as lower bond rates, delayed construction of the 500-foot-long section of the Van Ness Avenue extension between Mission and Howard streets until 1931.³⁹ Similar to events after completion of the first segment, completion of the extension resulted in a small real estate boom. The extension gained more value with the opening of the Bay Bridge in November 1936. An article from earlier in the year, covering construction of the McKean Brothers tire store at the corner of South Van Ness Avenue and 12th Street, predicted that the intersection would be "the busiest traffic artery in San Francisco when the bridge is opened for travel."⁴⁰

When completed, the 125-foot-wide South Van Ness Avenue (initially called Van Ness Avenue South) fed vehicular traffic to Van Ness Avenue north of Market Street and became a major segment of U.S. 101 through San Francisco to and from the Golden Gate Bridge. Historically concentrated north of Market Street along the Van Ness Avenue corridor prior to the 1930s, automobile and truck showrooms, repair garages, parts stores, and service stations increasingly spread south of Market Street with the construction of South Van Ness Avenue. Between 12th and Howard streets, for example, South Van Ness Avenue was dominated by automobile repair and service buildings with Art Deco façades. In 1937, the California Department of Public Works completed construction of a State Motor Vehicle Office at 160 South Van Ness Avenue.^{41,42,43}

³⁸ *San Francisco Chronicle*, "Van Ness Extension to Be Opened Today," March 11, 1926, p. 10.

³⁹ *San Francisco Chronicle*, "\$9,380,000 Street Improvement Plan Nears Completion," August 16, 1931, p. 1.

⁴⁰ *San Francisco Chronicle*, "McKean Pair Celebrates 20th Anniversary," March 22, 1936, p. 4A.

⁴¹ William Kostura, *Van Ness Auto Row Support Structures: A Survey of Automobile-Related Buildings along the Van Ness Avenue Corridor*, prepared for the San Francisco Planning Department, 2010, pp. 28 to 31.

⁴² R. W. Olmstead, Historical Overview, Chapter 3, in *California Department of Transportation, San Francisco Central Freeway Replacement Project—Alternative 8B: Archaeological Research Design and Treatment Plan City and County of San Francisco, CA, 2002*, pp. 88 and 89.

⁴³ Page & Turnbull, *Historic Context Statement for the Market and Octavia Area Plan Historic Resource Survey, San Francisco, California*, prepared for the San Francisco Planning Department, 2007, pp. 85 to 106.

During the 1950s, transportation planners had a vision for a San Francisco that would be crossed by multiple elevated freeways. By 1955, the Central Freeway was completed from the Bayshore Freeway west to Mission Street, crossing the far southern end of the Hub Plan area. By 1959, it crossed Market Street and continued north into Hayes Valley along Octavia Street. Also in 1959, the Embarcadero Freeway was constructed beyond the Hub Plan area, extending from the Bay Bridge approach north to Broadway.

Mounting opposition to San Francisco freeway development coalesced in the Freeway Revolt of 1959–1962, which ended construction of the Embarcadero Freeway (which then reached as far north as Broadway) and the Central Freeway (which then extended to Golden Gate Avenue). One consequence of the construction of the Central Freeway above Duboce Avenue was further deterioration of adjacent neighborhoods and increasing blight, which subsequently led to redevelopment.⁴⁴ The Embarcadero Freeway and the Central Freeway as far south as Market Street were both dismantled following the 1989 Loma Prieta earthquake.

SOCIAL GROUPS IN THE HUB PLAN AREA

In addition to the physical development history of the Hub Plan area described above, the area's social history was investigated as part of the current study and informed the identification of historical resources. The ARDTP, in addition to previously prepared neighborhood- and thematic-based historic context statements, were reviewed in order to establish significant demographic trends that shaped the social fabric of the Hub Plan area during the late 19th and 20th centuries.

Social groups who have called the Hub Plan area and surrounding neighborhoods home since its early development in the second half of the 19th century have predominantly included working class populations attracted by the area's housing located in close proximity to industrial employers in the SoMa neighborhood. By 1879, the percentage of San Francisco's population who were born outside of the United States was greater than in any other U.S. city. Approximately one-third of the entire city's residents were of Irish descent. The percentage was even greater in the Hub Plan area, where approximately half of residents were of Irish descent. The Irish presence within and surrounding the Hub Plan area was manifested through institutions that served the community, including St. Joseph's Church at the corner of 10th and Howard streets. By the turn of the 20th century, the composition of the Hub Plan area's population also included a considerable number of unmarried male laborers of various ethnic backgrounds, who were not drawn to the neighborhood for its community institutions and social bonds. Rather, these laborers sought affordable short-term housing and often relocated to follow available work for the unskilled.⁴⁵

⁴⁴ R. W. Olmstead, Historical Overview, Chapter 3, in *California Department of Transportation, San Francisco Central Freeway Replacement Project—Alternative 8B: Archaeological Research Design and Treatment Plan City and County of San Francisco, CA, 2002*, pp. 90 and 91.

⁴⁵ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, pp. 3-27. This document contains sensitive archaeological information and is confidential.

Following the destruction of the Hub Plan area and wider SoMa district in the 1906 earthquake and fires, earlier types of industries were reestablished there during the city's reconstruction period. Although social and religious institutions such as St. Joseph's Church were rebuilt in the decade following the earthquake, much of the Irish community that had occupied SoMa in the late 19th and early 20th centuries was displaced to other working-class districts of San Francisco, including the Mission District (which borders the Hub Plan area to the south). Over the course of the early 20th century, changes to federal immigration policy introduced nation-based quota systems and reading requirements, which particularly targeted immigrants from Asian countries and led to a significant drop in the number of foreign-born individuals who arrived in San Francisco. Concurrently, through World War II, the population of single working-class men became even more pronounced in SoMa, as well as adjacent areas, where cheap and temporary accommodations such as residential hotels were available.⁴⁶

During the second half of the 20th century, the SoMa district evolved into a thriving Filipino ethnic enclave. Immigrants from the Philippines began to arrive in San Francisco after the turn of the 20th century, following U.S. acquisition of the Philippines in the Spanish-American War in 1898. Because of U.S. possession of the Philippines, Filipinos qualified as U.S. nationals and, as a result, were allowed to travel to and find work in the U.S. Although many Filipino men were drawn to jobs in the state's rural agricultural industries through the 1920s, some sought work in San Francisco and formed the city's first pronounced Filipino enclave along Kearny Street in what was known as Manilatown, adjacent to the Financial District and Chinatown. An additional Filipino enclave subsequently took root in Japantown and grew during World War II after the neighborhood's Japanese-American residents were forcibly removed to internment camps. The Philippines gained its independence from the U.S. in 1946, which led to an increase in trade-oriented Filipino businesses in San Francisco. Manilatown remained the most important Filipino enclave in San Francisco until the Immigration Act of 1965, which substantially expanded the number of Filipinos who were granted residency in the U.S. each year. Many of the approximately 25,000 immigrants from the Philippines who resided in San Francisco by 1970 formed the Filipino community in SoMa, which in part took root there because urban renewal projects and increased downtown development had destroyed the community's earlier enclaves in Manilatown and Japantown.⁴⁷

The Filipino enclave that defined the social and cultural fabric of SoMa beginning in the 1960s was manifested through numerous commercial establishments that served individuals with Filipino backgrounds, as well as social and cultural institutions that preserved and honored

⁴⁶ Page & Turnbull, *Historic Context Statement, South of Market Area, San Francisco, California, San Francisco, California*, prepared for the San Francisco Planning Department, June 30, 2009, pp. 31, 58.

⁴⁷ Page & Turnbull, *San Francisco Filipino Heritage Addendum to the South of Market Historic Context Statement*, prepared for the San Francisco Planning Department, March 13, 2013, pp. 4, 7, 12–14, 16, 18–20.

community ties and heritage. Many members of the community lived in housing along SoMa's smaller streets, including Natoma, Tehama, and Minna streets. During the 1960s and 1970s, this community was largely centered further east of the Hub Plan area and was generally bounded by Market, Third, Brannan, and Eighth streets.⁴⁸ However, residences, businesses, and significant institutions that contributed to the community were located farther to the west, including the formerly Irish-Catholic St. Joseph's Church at 10th and Howard streets (approximately one block east of the Hub Plan area's eastern boundary), which served a largely Filipino congregation after the 1960s.⁴⁹ In recognition of the continued place of Filipinos in the development of the SoMa area, the board of supervisors established the SoMa Pilipinas–Filipino Cultural Heritage District in 2016.⁵⁰ The cultural heritage district extends east to 11th Street and overlaps the eastern portion of the Hub Plan area.

Lesbian, gay, bisexual, transgender, and queer (LGBTQ) communities also made a discernible imprint on the SoMa district, and by extension the adjacent Hub area, during the last decades of the 20th century. While not the first neighborhood where San Francisco's sexual minorities established an enclave, SoMa developed into an important concentration of businesses, nightlife establishments, arts and health centers, and social institutions that served the needs of members of LGBTQ communities after 1950. At this time SoMa offered inexpensive rents and plentiful vacant spaces in the district's industrial and commercial buildings, which allowed socially marginalized people to establish institutions serving their community members somewhat out of the eye of the city's political and cultural mainstream.⁵¹

During the 1950s, the SoMa district was home to the national headquarters of the lesbian rights organization the Daughters of Bilitis, as well as the homophile group the Mattachine Society. Through the 1960s, 1970s, and 1980s, SoMa held a concentration of LGBTQ nightlife establishments, including bars, night clubs, and bathhouses. Some of the bars served lesbian clientele: one of these that operated in the mid-1960s, the Cheque Room at 1551–1559 Mission Street, was located within the Hub Plan area, and subsequently housed additional LGBTQ-associated businesses. The distinct LGBTQ enclave within and surrounding SoMa also included arts and culture organizations, LGBTQ-focused health clinics, and queer presses that published

⁴⁸ Page & Turnbull, *San Francisco Filipino Heritage Addendum to the South of Market Historic Context Statement*, pp. 20–21.

⁴⁹ Page & Turnbull, *Historic Context Statement, South of Market Area, San Francisco, California*, prepared for the San Francisco Planning Department, June 30, 2009, pp. 31–32.

⁵⁰ San Francisco Board of Supervisors, Resolution 119-16, April 12, 2016.

⁵¹ Donna J. Graves and Shayne E. Watson, *Citywide Historic Context Statement for LGBTQ History in San Francisco*, prepared for the City and County of San Francisco, March 2016, p. 164.

a range of books, magazines, and newsletters that addressed LGBTQ cultural and political issues. The Women’s Press Project, a feminist publishing and skills-building organization, operated out of the building at 95 Brady Street in the Hub Plan area during the 1980s.⁵²

Among the first LGBTQ-associated establishments in SoMa were bars and bathhouses that catered to gay male patrons, particularly those who were affiliated with the leather community. Broadly defined, the leather subculture distinguished itself from mainstream gay male culture through an emphasis on hyper-masculinity and the use of leather dress and sexual accoutrements. The earliest leather bar, the Tool Box at 399 Fourth Street, began serving patrons in 1962. Numerous other gay leather bars followed, with the majority located along Folsom Street between Eighth and 12th streets. The southern end of the Folsom Street bar district—which became known in the gay community as the Valley of the Kings—lay southeast of the Hub Plan area. In addition, many gay bathhouses, nightclubs, and sex clubs were founded in the surrounding neighborhood to serve the gay leather subculture. This subculture and its associated bars and clubs in SoMa were especially hard hit by the AIDS crisis of the 1980s and 1990s as sex clubs and bathhouses were blamed by municipal officials and some mainstream gay male commentators for the spread of the epidemic; legal decisions forced such establishments to close.⁵³ In 2018, the San Francisco board of supervisors adopted a resolution creating the LGBTQ and Leather Cultural District, which is located south of Howard Street between Seventh and 13th streets and is immediately adjacent to the southeastern boundary of the Hub Plan area.⁵⁴ The California register-eligible SoMa LGBTQ Historic District, described under “Historic Districts in the CEQA Study Area” below, also recognizes the significant historic context of LGBTQ communities in the SoMa district. Two buildings identified as potential contributors to this district are located in the Hub Plan area: the Women’s Press Project at 95 Brady Street and the Cheque Room at 1551–1559 Mission Street.⁵⁵

Neither the SoMa Pilipinas–Filipino Cultural Heritage District nor the LGBTQ and Leather Cultural District qualifies as a historic district for the purpose of CEQA review. However, both districts are described above in order to provide social history context for the Hub Plan area.

⁵² Shayne E. Watson, *Historic Resources Evaluation, 280-282 7th Street, San Francisco, California*, July 20, 2017, prepared for Dragonfly Assets C-54, LLC, pp. 30–35.

⁵³ Donna J. Graves and Shayne E. Watson, *Citywide Historic Context Statement for LGBTQ History in San Francisco*, prepared for the City and County of San Francisco, March 2016, p. 167.

⁵⁴ San Francisco Board of Supervisors, Resolution No. 129-18, May 9, 2018.

⁵⁵ Shayne E. Watson, *Historic Resources Evaluation, 280-282 7th Street*, pp. 51, 53.

BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

The following section presents details regarding the built-environment resources in the CEQA study area that qualify as historical resources under CEQA. As described in the introduction to this section, a property is considered a historical resource under CEQA if it is listed in or formally determined eligible for listing in the California register; is included in an adopted local register; is identified as significant in a qualifying historical resource survey; or is otherwise determined by the CEQA lead agency to be historically significant.

This overview of built-environment resources in the CEQA study area is organized first to describe the historical resources that were identified prior to preparation of the Hub Plan EIR. This includes resources within the CEQA study area that have been designated under San Francisco Planning Code articles 10 and 11, thereby meeting the CEQA requirements for adopted local registers, and the built-environment surveys that have previously been conducted in the CEQA study area and have identified historical resources. Finally, this section describes the methodology and the results of the Hub Plan Historical Resources Survey (Hub Survey), which was undertaken to evaluate those properties within the CEQA study area that require new or updated historical resource evaluations for the current study. The locations of all built-environment resources in the CEQA study area are illustrated in **Figure 3.A-1**.

ARTICLES 10 AND 11, LOCAL REGISTERS

Articles 10 and 11 of the planning code establish registers of formally designated landmarks. Article 10 gives San Francisco the ability to identify and protect historic landmarks from inappropriate alterations. Landmarks designated under article 10 include buildings, sites, and objects; landmark districts are also designated under article 10. Article 11 allows the City to designate individual buildings and conservation districts in the C-3 Downtown Commercial zoning district that have architectural quality and contribute to the environment. The individual buildings designated under article 11 are assigned to one of five categories: Category I and II buildings are designated “Significant Buildings,” Category III and IV buildings are designated “Contributory Buildings,” and Category V buildings are designated “Unrated.”

Articles 10 and 11 are both adopted local registers of historical resources that meet the requirements of CEQA; therefore, any property that has been locally designated as an article 10 landmark; a category I, II, III, or IV building under article 11; or a contributor to an article 10 or 11 district is considered a CEQA historical resource. Article 11 Category V buildings are not considered CEQA historical resources on the basis of their article 11 designation.⁵⁶

⁵⁶ San Francisco Planning Department, *San Francisco Preservation Bulletin No. 16: City and County of San Francisco Planning Department CEQA Review Procedures for Historic Resources*, March 2008, <https://sf-planning.org/sites/default/files/FileCenter/Documents/5340-PresBulletin16CEQA.pdf>, accessed December 10, 2018.

The CEQA study area contains three individual resources designated under article 10: the High School of Commerce at 135 Van Ness Avenue (Landmark No. 140), the Path of Gold light standards (Landmark No. 200), and the Juvenile Court and Detention Building at 150 Otis Street (Landmark No. 248). The CEQA study area also contains four buildings designated as categories I–IV under article 11: 50 Fell Street, the Masonic Temple at 25 Van Ness Avenue, the Young Men’s Institute at 50 Oak Street, and the Miramar Apartments at 20 Franklin Street. Additional information on these individual historical resources is provided in **Table 3.A-2**, p. 3.A-33. The CEQA study area also contains all eight contributing buildings to the Market Street Masonry Landmark District, which is designated under article 10 and described in greater detail under “Historic Districts in the CEQA Study Area” below.

PREVIOUS BUILT-ENVIRONMENT SURVEYS

Numerous historical resources in the CEQA study area have previously been identified through documentation and evaluation in built-environment surveys. If the findings of a San Francisco survey have been adopted by the historic preservation commission, planning commission, or board of supervisors, the resources that the survey determines to be significant will qualify as belonging to a local register of historical resources and are considered CEQA historical resources. For federal undertakings, built-environment surveys may be conducted to identify historic properties in order to meet the requirements of section 106 of the National Historic Preservation Act. In these instances, if a property is determined eligible for listing in the national register of Historic Places and the State Historic Preservation Officer concurs with that determination, the property is automatically listed in the California register and is a CEQA historical resource.

Additional built-environment surveys in San Francisco that are not formally adopted by municipal review bodies or reviewed by the State Historic Preservation Officer may provide information that informs the subsequent identification of CEQA historical resources. The following outlines the previous built-environment surveys that have been conducted in the CEQA study area.

Locally Adopted Surveys

The following locally adopted surveys evaluated built-environment resources within the CEQA study area.

Here Today

In the 1960s, the Junior League of San Francisco conducted one of the first built-environment surveys in San Francisco, documenting approximately 2,500 properties. The organization published its findings in the book *Here Today: San Francisco’s Architectural Heritage* (Here Today)

in 1968.⁵⁷ The survey did not assign ratings to buildings or involve in-depth archival research or formal historical evaluation of the properties. On May 11, 1970, the findings of the Junior League survey were adopted by the San Francisco Board of Supervisors as Resolution No. 268-70. The survey qualifies as an official local historical register under CEQA.

Three buildings in the CEQA study area qualify as CEQA historical resources because of their inclusion in the Here Today survey: 37–47 Haight Street, 53–57 Haight Street, and 61–65 Haight Street. Additional information on these three resources is presented in **Table 3.A-2**, p. 3.A-33.

Market and Octavia Area Plan Historic Resource Survey and Augmentation Survey

Between 2000 and 2007, the San Francisco Planning Department (department) developed the Market and Octavia Area Plan, a neighborhood plan intended to promote connectivity, encourage housing development, preserve neighborhood character, and improve the public realm. The Market and Octavia Area Plan covers an irregularly shaped area that generally lies south of Turk Street, west of 10th Street, north of 16th Street, and east of Scott Street. The Market and Octavia Area Plan area encompasses nearly the entirety of the Hub Plan area.

During development of the Market and Octavia Area Plan, the department sponsored the Market and Octavia Area Plan Historic Resource Survey (Market and Octavia Survey). The Market and Octavia Survey involved documentation of approximately 1,500 historic-age buildings within the survey area at the reconnaissance level, using DPR 523A (Primary Record) forms. Following completion of a historic context statement that described physical development and historic context themes associated with the survey area, the department selected 155 resources, including historic districts with numerous contributing properties, to survey at the intensive level and evaluate for eligibility for listing in the national and California registers. The individual resources selected were documented on 523B (Building, Structure, and Object Record) forms; eligible historic districts were documented on 523D (District Record) forms. The findings of the Market and Octavia Survey, including the historic register evaluation of 155 individual historical resources and eight historic districts, were adopted by the San Francisco Historic Preservation Commission on February 19, 2009.

The Market and Octavia Augmentation Survey was undertaken between 2008 and 2011 to document additional properties within the Market and Octavia Area Plan area. The augmentation survey resulted in updates to the Hayes Valley Residential Historic District and provided California register evaluations for additional individual historical resources that did not receive an intensive-level survey during the original Market and Octavia Survey.

⁵⁷ The Junior League of San Francisco, *Here Today: San Francisco's Architectural Heritage*, Chronicle Books, 2nd Edition, 1968.

The Market and Octavia Survey and Market and Octavia Augmentation Survey determined that 28 individual built-environment resources in the CEQA study area qualify for recognition as historical resources under CEQA. These resources are listed in **Table 3.A-2**, p. 3.A-33.

Automotive Support Structures Survey

The Automotive Support Structures Survey, completed in 2010, involved the evaluation of properties near the Van Ness Avenue corridor that are associated with the development of the automobile industry in San Francisco during the first quarter of the 20th century. The boundaries of the survey area were generally delineated by Pacific Avenue to the north, Gough Street to the west, Mission Street to the south, and Larkin Street to the east. During the survey, 112 automobile-related buildings were recorded and evaluated for California register eligibility using DPR form sets. Four of these buildings are located within the CEQA study area and are described in **Table 3.A-2**, p. 3.A-33. The findings of the Automotive Support Structures Survey were adopted by the San Francisco Historic Preservation Commission on July 21, 2010. The following four individual built-environment resources located within the CEQA study area were determined eligible for California register listing in the Automotive Support Structures Survey: the Balcom and Gigg Auto Wheel Aligning Company building at 159 Fell Street, Hotel Andree at 1663–1667 Market Street, 42–50 12th Street, and the Jeffrey Auto Sales Company Showroom at 56–70 12th Street.

South of Market Historic Resource Survey

Similar to the effort undertaken in support of the Market and Octavia Area Plan, the department sponsored the South of Market Area Historic Resource Survey (SoMa Survey) to inform development of the South of Market Area Plan. The SoMa Survey was conducted between 2009 and 2011 and involved a reconnaissance-level survey of the built environment within San Francisco's SoMa district as well as an intensive-level survey and California register evaluation of selected individual buildings and historic districts. The survey area defined for the SoMa Survey does not overlap the CEQA study area; however, one California register-eligible historic district identified in the SoMa Survey, the Western SoMa Light Industrial and Residential Historic District (described in greater detail below), extends slightly outside the SoMa Survey area and into the Hub Plan area. The findings of the SoMa Survey were adopted by the San Francisco Historic Preservation Commission on February 16, 2011.

The SoMa Survey did not identify any individually eligible historical resources within the Hub Plan area but did identify the Western SoMa Light Industrial and Residential Historic District, a portion of which extends into the Hub Plan area.

Central Freeway Replacement Project Historic Architecture Survey

In 1996, the California Department of Transportation conducted a survey of built-environment resources in support of the Central Freeway Replacement Project. This project sought to shorten the elevated Central Freeway (carrying U.S. 101) through the Hayes Valley neighborhood

following damage the freeway sustained during the 1989 Loma Prieta earthquake. The Central Freeway Replacement Project brought the freeway to street level at Market and Octavia streets and removed the elevated structure north of Market Street. In addition, seismic strengthening was conducted on the remaining portions of the structure. Pursuant to section 106 of the National Historic Preservation Act, the California Department of Transportation completed its built-environment survey to identify historic properties in the project's Area of Potential Effect. Surveyed properties were documented on DPR 523A and 523B forms and evaluated for eligibility for listing in the national register. The survey was not conducted to inform CEQA review, and its findings were not adopted locally. However, the determinations of national register eligibility were formally reviewed by the State Historic Preservation Officer, followed by concurrence, as part of the section 106 compliance process. Any property found to be national register eligible in the Central Freeway Replacement Project Historic Architecture Survey was automatically listed in the California register and therefore qualifies as a CEQA historical resource.

The DPR forms and comprehensive findings of the Central Freeway Replacement Project Historic Architecture Survey are not publicly available on the department's Property Information Map. However, consultation with the department has revealed two properties in the Hub Plan area, the Bekins warehouse at 190–198 Otis Street and the Knights & Daughters of Pythias building at 135 Valencia Street, that qualify for recognition as CEQA historical resources because of their evaluation in this survey and eligibility for listing in the national register.^{58,59}

Department of City Planning Architectural Quality Survey

The San Francisco Department of City Planning Architectural Quality Survey of 1976 (1976 DCP Survey) was a city reconnaissance survey that identified and rated architecturally significant buildings and structures, using a scale of 0 (contextual) to 5 (extraordinary). Potential historical significance was not considered when assigning a rating, and research regarding the history of the buildings and structures was not conducted. The 10,000 rated buildings and structures included in the survey accounted for only 10 percent of the city's architectural building stock but encompassed numerous properties that are within the Hub Plan area. The 1976 DCP Survey, which is illustrative of the relative value the DCP assigned buildings and structures at a particular point in time, is recognized by the department for informational purposes only. Recordation alone in the 1976 DCP Survey does not qualify a property for recognition as a

⁵⁸ California Department of Transportation, 190-198 Otis Street, State of California Department of Parks and Recreation Primary Record and Building, Structure, and Object Record Form. Completed for the *Historic Architecture Survey Report for the Central Freeway Replacement Project in the City of San Francisco*, 1997.

⁵⁹ California Department of Transportation, 101-129 Valencia Street, State of California Department of Parks and Recreation Primary Record and Building, Structure, and Object Record Form. Completed for the *Historic Architecture Survey Report for the Central Freeway Replacement Project in the City of San Francisco*, 1997.

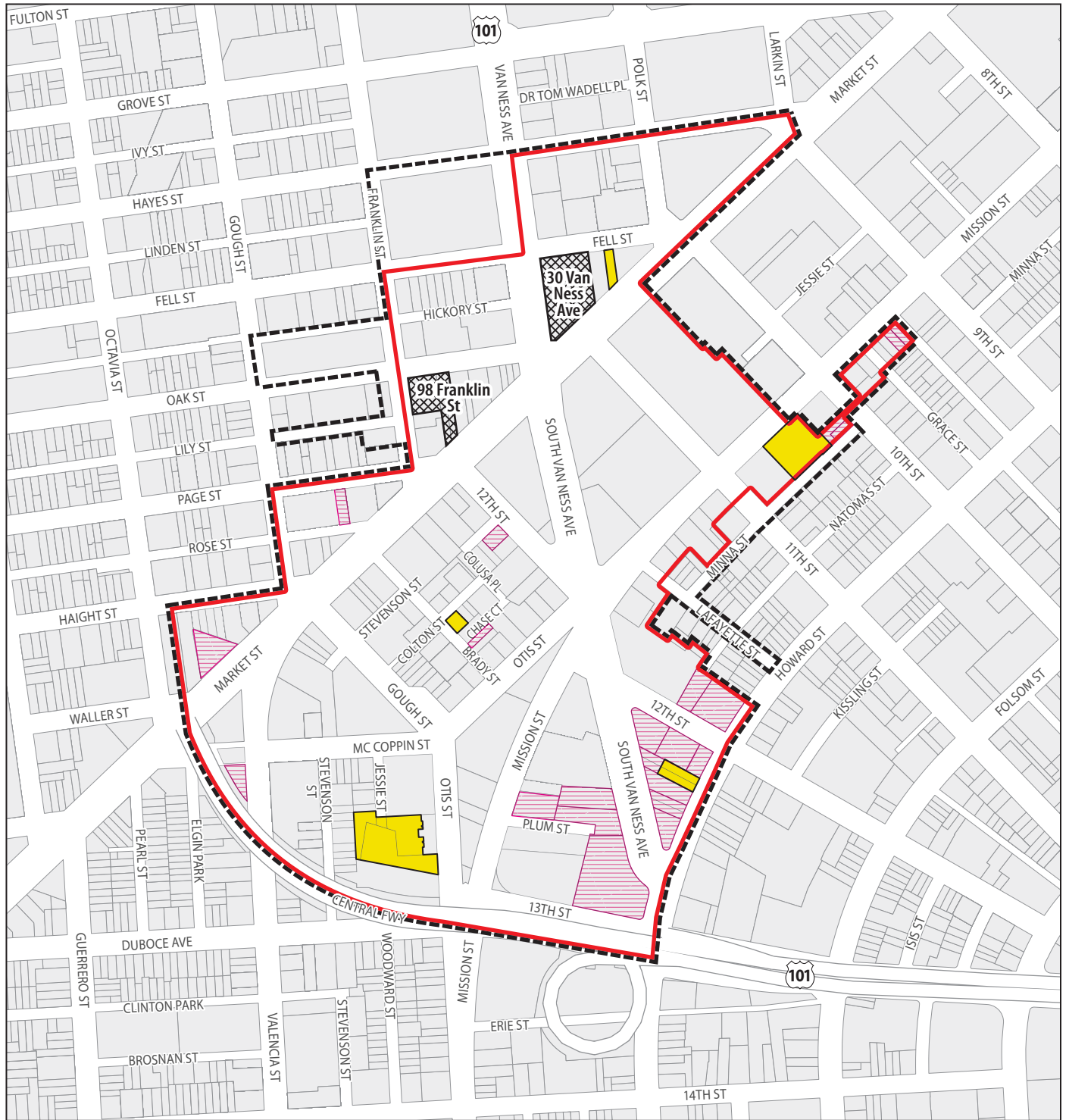
historical resource for the purposes of CEQA. However, the ratings assigned in the 1976 DCP Survey can provide information that supports future determinations during the CEQA review process.

HUB PLAN HISTORICAL RESOURCES SURVEY






The Hub Survey was conducted between 2018 and 2019 to develop a comprehensive inventory of all properties within the Hub Plan area, along with current California register eligibility findings. The survey area was defined as the CEQA study area. Most of the historic-age properties (more than 45 years old) within the CEQA study area had previously been surveyed and evaluated during the Market and Octavia or SoMa surveys, through local designation, or through the CEQA review process. All individual built-environment resources within the Hub Plan area were examined to assess whether past evaluations or designations existed, and to determine whether existing historic register evaluations were current. This effort determined that 26 historic-age built-environment resources within the Hub Plan area had not been previously evaluated for historic resource status or required updated documentation and California register evaluation. Through consultation with the department, it was determined that one additional property that was not yet 45 years in age, 170 Otis Street, also required evaluation for California register eligibility because sufficient time had passed to develop a scholarly perspective on its potential significance. The locations of the 27 properties surveyed in the Hub Survey are represented in **Figure 3.A-2**.

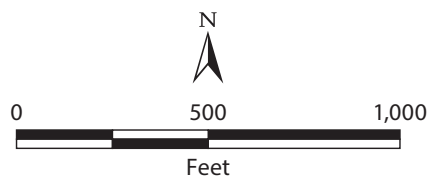
Some resources identified as requiring new evaluation in the Hub Survey were located in the survey areas of the Market and Octavia and SoMa surveys but had not previously been evaluated for California register eligibility. In some instances, this was because the properties had not been among those selected for intensive-level survey and California register evaluation. In other instances, a property did not qualify as historic-age at the time of the previous survey.

Several properties in the Hub Plan area had an existing designation or historic register evaluation that was determined not to be sufficient for the purposes of the current study. One building, 1438–1444 Market Street, was designated under Category 11 as a Category V “unrated” building, meaning that it was included in a local register but did not qualify as a CEQA historical resource. The building at 1663–1667 Mission Street was documented and evaluated in the Central Freeway Replacement Project Historic Architecture Survey and was found to be ineligible for listing in the national register. The building at 1663–1667 Mission Street was included in the survey population of the Hub Survey because the building did not have a documented evaluation for California register eligibility. One additional building, 1740–1760 Market Street, was previously evaluated in the Market and Octavia Survey and determined to be ineligible for listing in the California register. However, 1740–1760 Market Street required reevaluation because it was identified in the 2015 *Citywide Historic Context Statement for LGBTQ History in San Francisco* as having associations with San Francisco’s LGBTQ social and cultural history.



Legend

-  CEQA Study Area
-  The Hub Plan Area
-  Individual Development Project Site
-  Surveyed properties found eligible for California Register listing
-  Surveyed properties found ineligible for California Register listing



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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure 3.A-2
Properties Surveyed in the Hub Plan
Historical Resources Survey

Built-environment resources identified as requiring new documentation were evaluated as individual resources during the Hub Survey using the evaluative criteria of the California register. Surveyed resources could be determined to be significant for their associations with historic contexts that took place less than 45 years ago if it can be demonstrated that sufficient time has passed to develop a scholarly perspective on the resource's significance.

Of the 27 built-environment resources within the Hub Plan area that were evaluated during the Hub Survey, five were determined eligible for listing in the California register and, thus, are CEQA historical resources:

- San Francisco Women's Centers, 55–63 Brady Street
- San Francisco Cannabis Buyers Club, 1438–1444 Market Street
- Gantner & Mattern Company Building, 1453 Mission Street
- 1618–1624 Howard Street
- San Francisco Human Services Agency, 170 Otis Street

All DPR form sets completed for the Hub Survey are included in Appendix C.

INDIVIDUAL BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

As described above, individual built-environment resources within the CEQA study area, which consist of buildings and objects, were evaluated as CEQA historical resources during built-environment surveys, through local designation efforts, and through resource evaluations conducted for development projects, pursuant to the department's CEQA review process. Those resources located in the CEQA study area are listed in **Table 3.A-2**, p. 3.A-33, and shown in **Figure 3.A-1**, p. 3.A-20.⁶⁰ **Table 3.A-2**, p. 3.A-33, presents each property's address, Assessor's Parcel Number(s), and existing designation that qualifies it as a CEQA historical resource. If a property has been evaluated in a built-environment survey, the name of the applicable survey and the property's assigned survey rating is stated. A brief significance summary is also provided for each resource, which describes the evaluative criterion under which it is significant as well as its period of significance.

HISTORIC DISTRICTS IN THE CEQA STUDY AREA

In addition to individual built-environment resources, the CEQA study area overlaps with several historic districts. The National Park Service defines a historic district as an entity that "possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united

⁶⁰ The building at 14–18 Otis Street, located within the CEQA study area, was identified as a historical resource in the Market and Octavia Survey. However, 14–18 Otis Street underwent separate environmental review under Case No. 2015-010013ENV and was approved for demolition following the issuance of the NOP for this EIR. 14–18 Otis Street is not a historical resource for the purposes of the current EIR and is not included in the table of built-environment resources.

historically or aesthetically by plan or physical development.”⁶¹ Eight historic districts that were identified in previous built-environment surveys are entirely or partially within the CEQA study area. One additional historic district is located adjacent to the CEQA study area. The locations of the nine historic districts within or adjacent to the Hub Plan area are shown in **Figure 3.A-1**, p. 3.A-20. Buildings within the CEQA study area that contribute to these historic districts are listed in **Table 3.A-2**, p. 3.A-33.

The following summarizes the general characteristics, applicable historic register evaluative criteria, and identified periods of significance for the eight historic districts located entirely or partially within the CEQA study area:

- **Civic Center Landmark District:** The Civic Center Landmark District is locally designated under article 10 of the planning code. The article 10 landmark district fully encompasses the smaller boundaries of the Civic Center National Historic Landmark District and Civic Center National Register Historic District, which were delineated during earlier evaluations. One parcel along the southern boundary of the Civic Center Landmark District, the High School of Commerce at 135 Van Ness Avenue, extends into the CEQA study area. The district contains numerous contributing buildings and character-defining cultural landscape features centered around San Francisco City Hall and Civic Center Plaza. The district’s local and national designations recognize its significance under national register/California register Criteria A/1 (Events), related to important developments in San Francisco urban planning during the first half of the 20th century, and under national register/California register Criteria C/3 (Architecture), related to the formal Beaux Arts architecture and City Beautiful planning and landscape design principles that established a unified urban district containing some of San Francisco’s most important civic institutions. The district’s period of significance is 1896–1951. Character-defining features of the district that are located on the block within the CEQA study area include the High School of Commerce, granite curb, brick paving along Van Ness Avenue, and single-pendant streetlight.
- **Hayes Valley Residential Historic District:** The Hayes Valley Residential Historic District was first determined to be eligible for listing in the national register through survey evaluation in 1997. The boundary of the district was expanded in the Market and Octavia Survey, which documented the district’s eligibility for listing in the California register under Criterion 3. The southeastern boundary of the Hayes Valley Residential Historic District lies adjacent to the northwestern boundary of the Hub Plan area. The district’s contributing buildings are spread across approximately 30 city blocks. The district is significant as a unified collection of Victorian- and Edwardian-era residential architecture. The district’s period of significance is 1860–1920.

⁶¹ National Park Service, *National Register Bulletin: How to Apply the National Register Criteria for Evaluation*, https://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_4.htm, accessed July 2, 2019.

- **Jessie-McCoppin-Stevenson Streets Reconstruction Historic District:** The Market and Octavia Survey determined that the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District is eligible for listing in the California register under Criterion 1 (Events). This district, which is entirely within the Hub Plan area, consists of two- or three-story residential buildings across two city blocks that date to the immediate reconstruction period following the 1906 earthquake. The DPR 523D form completed for the district specifies that the resource contains 15 contributing buildings. Its period of significance is defined as 1906–1912.
- **Market Street Cultural Landscape District:** The Market Street Cultural Landscape District encompasses the Market Street corridor between The Embarcadero and Octavia Boulevard; as such, the western portion of the cultural landscape district extends through the northern half of the Hub Plan area. The Market Street Cultural Landscape District was determined eligible for listing in the national and California register by the *Better Market Street Project Cultural Landscape Evaluation*, completed in 2016; the findings of the cultural landscape evaluation were identified by the department through the CEQA review process in 2017.⁶² The *Better Market Street Project Cultural Landscape Evaluation* was prepared to support the identification of historical resources for the Better Market Street Project EIR, which includes the district as one of the identified historical resources within the area of the Better Market Street Project. The Market Street Cultural Landscape District encompasses the Market Street streetscape, inclusive of roadways, sidewalks, plazas, small-scale features (e.g., street furniture, monuments, and light standards), and viewsheds, between The Embarcadero and Octavia Boulevard. The district is eligible for listing in the national and California register under Criteria A/1 as San Francisco’s main circulation artery and facilitator of urban development (period of significance 1847–1929) and as a significant venue for civic engagement in San Francisco (period of significance 1870s–1979). The district is furthermore eligible for national and California register listing under Criteria C/3 (Architecture and Design) for the design of the Market Street Redevelopment Plan streetscape developed by Lawrence Halprin & Associates, John Carl Warnecke & Associates, and Mario Ciampi & Associates (period of significance 1979).
- **Market Street Masonry Landmark District:** The Market Street Masonry Landmark District is a discontinuous historic district,⁶³ locally designated under article 10 of the planning code. The district contains the following eight contributing brick masonry

⁶² San Francisco Planning Department, *Historic Resource Evaluation Response, Market Street – Better Market Street Project*, July 2017. This document is on file and available for public review as part of Case File No. 2014.0012E.

⁶³ Although characterized as a discontinuous historic district, some district contributors are adjacent to one another.

buildings adjacent to or near the Market Street corridor southwest of its intersection with Van Ness Avenue: Miramar Apartments, 20 Franklin Street; Whiteside Apartments, 150 Franklin Street; Edward McRoskey Mattress Factory Company, 65 Gough Street; 1649–1655 Market Street; Hotel Ascot, 1657 Market Street; 1666–1668 Market Street; Gaffney Building, 1670–1680 Market Street; and Hotel Fallon, 1693–1695 Market Street. All eight buildings that contribute to the Market Street Masonry Landmark District are within the Hub Plan area. The district’s local designation recognizes its significance under California register Criterion 3, which is related to physical development of the Market Street corridor and the contributing buildings’ architectural design. The district’s period of significance is 1911–1925.

- **San Francisco Auxiliary Water Supply System:** The AWSS is a discontinuous⁶⁴ historic district that has been determined to be eligible for national and California register listing under Criteria A/1 and C/3 for its association with post-1906 earthquake reconstruction and engineering in San Francisco, with a period of significance of 1906–1913. The district was first documented on DPR 523A and 523D forms 2009; an updated and expanded recordation of the AWSS was completed in 2018 to inform the CEQA and section 106 review processes for the Better Market Street Project. The AWSS, a citywide gravity-fed water supply system for fire suppression that comprises numerous buildings, structures, and infrastructural features, extends across the Hub Plan area and beyond. Elements that contribute to the AWSS and are present within the Hub Plan area include the numerous high-pressure water hydrants within the public right-of-way along Market Street, Mission Street, 11th Street, and Van Ness Avenue, in addition to three sub-surface cisterns within or near the intersections of Market Street and Van Ness Avenue, Market Street and Valencia Street, and Otis Street and Mission Street.
- **SoMa LGBTQ Historic District:** The SoMa LGBTQ Historic District was determined to be eligible for California register listing through the department’s CEQA review process in 2017. As identified in the *280–282 Seventh Street Historic Resource Evaluation*, adopted by the department in 2017, this discontinuous district contains a range of property types across the SoMa LGBTQ Historic District that includes commercial and nightlife establishments, social movement organizational headquarters, community centers, publishing houses, medical facilities, residences, and arts institutions. Supported by information contained in the 2015 *Citywide Historic Context Statement for LGBTQ History in San Francisco*, the 2017 historic resource evaluation determined the SoMa LGBTQ Historic District to be significant under California register Criteria 1 and 2, in acknowledgment of the sustained presence of LGBTQ-identified communities and individuals within the

⁶⁴ The AWSS is characterized as a discontinuous historic district because some of its contributing features, such as cisterns, are not physically connected to the remainder of the system. However, all elements of the AWSS are functionally linked.

SoMa area during the historic district's proposed period of significance, 1950s–1980s. A comprehensive historical resource study has not yet been undertaken to conclusively define the district's boundaries and contributing resources. However, the 2017 historic resource evaluation proposed a list of approximately 100 potential contributing resources to the SoMa LGBTQ Historic District, which are geographically dispersed between Third Street to the northeast and 15th Street to the southwest. Two of the proposed contributors to the SoMa LGBTQ Historic District within the Hub Plan area are the Grace Perez Building at 95 Brady Street and 1551–1559 Mission Street.

- **Western SoMa Light Industrial and Residential Historic District:** The Western SoMa Light Industrial and Residential Historic District was identified and evaluated as eligible for listing in the California register in the 2009–2011 SoMa Survey. This district, which is generally bounded by Mission Street to the north, 13th Street to the west, Harrison and Bryant streets to the south, and Fifth Street to the east, covers much of the western portion of the SoMa area and contains approximately 686 contributing resources, which include primarily properties that historically had residential and light industrial uses. The Western SoMa Light Industrial and Residential Historic District is eligible under California register Criteria 1 and 3 for its associations with the physical development of the SoMa neighborhood in the early 20th century and its large number of architecturally notable industrial and residential buildings; it has a period of significance of 1906–1936. The boundary of the Western SoMa Light Industrial and Residential Historic District overlaps slightly with the southwestern boundary Hub Plan area; 11 sites within the boundary of the historic district are also within the Hub Plan area. These 11 sites within the Hub Plan area contain six contributing buildings in the Western SoMa Light Industrial Residential Historic District: 1375–1385 Mission Street, 1517 Mission Street; 1525 Mission Street; and 1543 Mission Street, 1084–1094 Natoma Street, and 1016–1020 Minna Street.

The following additional historic district is adjacent to the CEQA study area and, as such, also has the potential to sustain an indirect impact on its setting as a result of program- and project-level activities:

- **Elgin Park-Pearl Street Reconstruction Historic District:** The Elgin Park-Pearl Street Reconstruction Historic District was found eligible for listing in the California register in the Market and Octavia Survey under Criterion 1. The district is a concentration of two- to three-story residential flats buildings primarily located south of Market Street between Pearl Street and Elgin Park; the district boundary extends east to encompass one parcel that is adjacent to the Central Freeway on-ramp at Octavia Boulevard, such that the eastern boundary of the district is adjacent to the western boundary of the Hub Plan area. The Elgin Park-Pearl Street Reconstruction Historic District contains 35 contributors that represent the residential reconstruction of San Francisco's neighborhoods following the 1906 earthquake. The district's period of significance is 1906–1913.

Table 3.A-2, p. 3.A-33, lists the individual built-environment resources and historic districts in the CEQA study area that qualify as historical resources.

ARCHAEOLOGICAL SETTING

This subsection describes the archaeological resources from the prehistoric and historic periods and provides assessments of archaeological sensitivity in the Hub Plan area, as presented in the ARDTP.⁶⁵

ARCHAEOLOGICAL RESOURCES FROM THE PREHISTORIC PERIOD

This section describes archaeological resources from the prehistoric period, as presented in the ARDTP.

Recorded Prehistoric Archaeological Investigations in the Project and Vicinity

As noted in the Hub ARDTP, a records search at the Northwest Information Center identified three archaeological resources that had been previously documented in or adjacent to the Hub Plan area: CA-SFR-28, CA-SFR-136/H, and CA-SFR-148. Brief descriptions of each resource are provided below. **Table 3.A-3**, p. 3.A-49, provides additional context for each resource.

CA-SFR-28: Originally identified at a depth of 70 feet below the ground surface during construction of the Civic Center Bay Area Rapid Transit (BART) station, CA-SFR-28 consists of a set of human remains that appear to have been deposited in estuarine silts approximately 5,630 years ago. The site is just northeast of the northern edge of the Hub Plan area. Subsequent geoarchaeological studies performed in the 1075 Market Street vicinity, several blocks north of the Hub Plan area, have more precisely mapped local stratigraphy and landscape change in this area. CA-SFR-28 appears to no longer be extant, although no formal determination of national or California register eligibility has been made.

CA-SFR-136/H: Originally identified at depths ranging from 6 to 9 feet below the ground surface during preconstruction testing for the Howard Street Affordable Housing Project, CA-SFR-136/H consists of a small and localized prehistoric deposit, including stone tools, shellfish, and faunal remains intermixed with historical artifacts. The resource is mapped as being located at 1166 Howard Street, which is outside (east) of the Hub Plan area by approximately 0.18 mile. Considering the mixed nature of the deposit, it was not considered significant and was completely removed during the project. However, it is important to note that the northern and northeastern boundaries of the resource (outside the Hub Plan area) were not defined during the project.

⁶⁵ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, prepared for the San Francisco Planning Department, December 2018, pp. 3-1 to 3-32. This document contains sensitive archaeological information and is confidential.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
50 Fell Street	0814/010	Article 11	N/A	50 Fell Street is locally designated as an individual resource under local criteria related to architecture, with a period of significance of 1931.
55 Polk Street	0814/019	Market and Octavia Augmentation Survey	3CS	55 Polk Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1906-1929.
135 Van Ness Avenue; High School of Commerce	0815/001	Article 10; National Register	N/A	135 Van Ness Avenue is locally designated as an individual resource under local criteria related to architecture and history, with a period of significance of 1926. 135 Van Ness Avenue is a contributor to the Civic Center Landmark District, which is significant under Criteria A/1 and Criteria C/3 and has a period of significance of 1896–1951.
150 Oak Street	0833/033	Market and Octavia Survey	3CS	150 Oak Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1950.
25 Van Ness Avenue/25 Hickory Street; Masonic Temple	0834/004	Article 11	N/A	25 Van Ness Avenue is locally designated as an individual resource under local criteria related to architecture, with a period of significance of 1910.

⁶⁶ “N/A” indicates that a property was evaluated in a survey that did not assign rating codes (such as *Here Today*) or qualified as a historical resource because it was listed in a local inventory.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
150 Franklin Street; Whiteside Apartments	0834/012	Article 10; Market and Octavia Augmentation Survey	3CS	150 Franklin Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 150 Franklin Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.
159 Fell Street; Balcom and Gigg Auto Wheel Aligning Co.	0834/015	Automotive Support Structures Survey	3CS	159 Fell Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1926–1961.
145 Fell Street; St. Cecile Hotel	0834/018	Market and Octavia Augmentation Survey	3CS	145 Fell Street is eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.
50 Oak Street; Young Men's Institute	0834/027	Article 11	N/A	50 Oak Street is locally designated as an individual resource under local criteria related to architecture, with a period of significance of 1914.
1438–1444 Market Street; San Francisco Cannabis Buyers Club	0835/002	Hub Survey	3CS	1438–1444 Market Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1995–1998.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
20 Franklin Street/1580–1598 Market Street; Miramar Apartments	0836/010	Article 10; Article 11; Market and Octavia Augmentation Survey	3CS	20 Franklin Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 20 Franklin Street is also locally designated as an individual resource under local criteria related to architecture, with a period of significance of 1912. 20 Franklin Street is also eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1926.
41 Franklin Street	0837/001	Market and Octavia Augmentation Survey	3CS	41 Franklin Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1906–1926.
1632 Market Street	0854/002	Market and Octavia Survey	5S3	1632 Market Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1911.
1666–1668 Market Street	0854/004	Article 10; Market and Octavia Augmentation Survey	3CS	1666–1668 Market Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 1666–1668 Market Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1670–1680 Market Street; Gaffney Building	0854/005	Article 10; Market and Octavia Augmentation Survey	3CS	1670–1680 Market Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 1670-1680 Market Street is also eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1906–1926.
64–78 Gough Street; Finck Building	0854/006	Market and Octavia Survey	3CS	64–78 Gough Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1911.
61–65 Haight Street	0855/004	<i>Here Today</i>	N/A	61-65 Haight Street is assumed significant under California register Criterion 3, with a period of significance of 1900.
37–47 Haight Street	0855/013	<i>Here Today</i> ; Market and Octavia Augmentation Survey	3S	37–47 Haight Street is assumed significant under Criterion 3, with a period of significance of 1900. 37–47 Haight Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1870–1906.
53–57 Haight Street	0855/012	<i>Here Today</i> ; Market and Octavia Augmentation Survey	3S	53–57 Haight Street is assumed significant under Criterion 3, with a period of significance of 1900. 53–57 Haight Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1870–1906.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1649–1655 Market Street	3504/001	Article 10; Market and Octavia Augmentation Survey	3CS	1649–1655 Market Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 1649-1655 Market Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.
60 Brady Street; F. Muller Building	3504/013	Market and Octavia Survey	5S3	60 Brady Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1969–1978.
2 Gough Street/86 Otis Street	3504/019	Market and Octavia Survey	5S3	2 Gough Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1910.
1693–1695 Market Street; Hotel Fallon	3504/038	Article 10; Market and Octavia Augmentation Survey	3CS	1693–1695 Market Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 1683–1695 Market Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1687 Market Street/65 Gough Street; Edward McRoskey Mattress Factory	3504/040	Article 10; Market and Octavia Survey	3CS	1687 Market Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 1687 Market Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1925–1961.
1663–1667 Market Street; Hotel Andree	3504/044	Automotive Support Structures Survey	3CS	1663–1667 Market Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1920–1921.
1657 Market Street; Hotel Ascot	3504/046	Article 10; Market and Octavia Augmentation Survey	3CS	1657 Market Street is a contributor to the Market Street Masonry Landmark District, which is locally designated under criteria related to significant events and architecture, with a period of significance of 1911–1925. 1657 Market Street is also eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.
1601–1605 Market Street/20 12 th Street; Civic Center Hotel	3505/001	Market and Octavia Survey; Local CEQA Review	3CS	1601–1605 Market Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1915.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
42–50 12 th Street	3505/005	Automotive Support Structures Survey	3CS	42–50 12 th Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1922–1934 and 1938–1964.
56–70 12 th Street; Jeffrey Auto Sales Co. Showroom	3505/009	Automotive Support Structures Survey	3CS	56–70 12 th Street is eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1912–1918.
95 Brady Street/50–60 Otis Street; Women’s Press Project	3505/021	Market and Octavia Survey; Local CEQA Review	5S3	95 Brady Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1920. 95 Brady Street is also a contributor to the SoMa LGBTQ Historic District, which is eligible for listing in the California register under Criteria 1 and 2, with a period of significance of circa 1950s–1980s.
55–63 Brady Street; San Francisco Women’s Centers	3505/025	Hub Survey	3CS	55-63 Brady Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1973–1979.
1629–1637 Market Street	3505/032	Market and Octavia Survey; Local CEQA Review	3CS	1629-1637 Market Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1926.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
10 South Van Ness Avenue/ 1535–1599 Mission Street; Fillmore West	3506/004	Market and Octavia Survey; Local CEQA Review	5S3	10 South Van Ness Avenue is eligible for listing in the California register as an individual resource under Criteria 1 and 2, with a period of significance of 1968–1971.
1500 Mission Street; Coca-Cola Bottling Works/ White Motor Co.	3506/006; 3506/008- 011	Van Ness Auto Row Support Structures Survey; Local CEQA Review	3CS	1500 Mission Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1941.
1375–1385 Mission Street	3509/040	SoMa Survey	3D	1375–1385 Mission Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.
1453 Mission Street/950 Minna Street; Gantner & Mattern Company Building	3510/057	Hub Survey	3CS	1453 Mission Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1913.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1513 Mission Street; Firestone Tire Building	3511/001	SoMa Survey; Market and Octavia Augmentation Survey	3D; 3CS	1513 Mission Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936. 1513 Mission Street is also eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1929–1950.
120 11 th Street	3511/003	SoMa Survey	3D	120 11 th Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.
1563 Mission Street	3511/031	Market and Octavia Augmentation Survey	3CS	1563 Mission Street is eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1906–1929.
1551–1559 Mission Street	3511/033	Local CEQA Review	N/A	1551–1559 Mission Street is a contributor to the SoMa LGBTQ Historic District, which is eligible for listing in the California register under Criteria 1 and 2, with a period of significance of circa 1950s–1980s.
1084–1094 Natoma Street	3511/044	SoMa Survey	3D	1084–1094 Natoma Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1016–1020 Minna Street	3511/073	SoMa Survey	3D	1016-1020 Minna Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.
1517 Mission Street	3511/074	SoMa Survey	3D	1517 Mission Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.
1525 Mission Street; Herbst Bros. Wholesale Hardware Store	3511/075	SoMa Survey; Market and Octavia Augmentation Survey	3D; 3CS	1525 Mission Street is eligible for listing in the California register as an individual resource under Criterion 1, with a period of significance of 1906–1929. 1525 Mission Street is also a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.
1543 Mission Street	3511/080	SoMa Survey	3D	1543 Mission Street is a contributor to the Western SoMa Light Industrial and Residential Historic District, which is eligible for listing in the California register under Criteria 1 and 3, with a period of significance of 1906–1936.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
99 South Van Ness Avenue/40 Lafayette Street; Recorder Printing Company Building	3511/093	Market and Octavia Augmentation Survey	3CS	99 South Van Ness Avenue is eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1929–1950.
1600 Mission Street; Granfields Service Station	3512/001	Market and Octavia Augmentation Survey	3S	1600 Mission Street is eligible for listing in the California register as an individual resource under Criteria 1 and 3, with a period of significance of 1926–1950.
1 McCoppin Street/100–136 Otis Street; Pacific Telephone Building	3513/001	Market and Octavia Survey	3CS	1 McCoppin Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1937.
170 Otis Street/ 1350 Jessie Street; San Francisco Human Services Agency	3513/008, 081, 082, 207	Hub Survey	3CS	170 Otis Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1978.
1338–1342 Stevenson Street	3513/030	Market and Octavia Survey	3CD	1338–1342 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1363–1365 Stevenson Street	3513/045	Market and Octavia Survey	3CD	1363–1365 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
1353–1357 Stevenson Street	3513/047	Market and Octavia Survey	3CD	1353–1357 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
1339 Stevenson Street	3513/049	Market and Octavia Survey	3CD	1339 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
1335–1337 Stevenson Street	3513/050	Market and Octavia Survey	3CD	1335–1337 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
1331–1333 Stevenson Street	3513/051	Market and Octavia Survey	3CD	1331–1333 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1307–1329 Stevenson Street	3513/052	Market and Octavia Survey	3CD	1307–1329 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
57–61 McCoppin Street	3513/055	Market and Octavia Survey	3CD	57–61 McCoppin Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
51–55 McCoppin Street	3513/056	Market and Octavia Survey	3CD	51–55 McCoppin Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
45–47 McCoppin Street	3513/057	Market and Octavia Survey	3CD	45–47 McCoppin Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
33–43 McCoppin Street	3513/058	Market and Octavia Survey	3CD	33–43 McCoppin Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
1312–1314 Jessie Street	3513/059	Market and Octavia Survey	3CD	1312–1314 Jessie Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
1334 Jessie Street	3513/062	Market and Octavia Survey	3CD	1334 Jessie Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic DISTRICT, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
33–43 McCoppin Street	3513/058	Market and Octavia Survey	3CD	33–43 McCoppin Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
1316–1330 Jessie Street	3513/077	Market and Octavia Survey	3CB	1316-1330 Jessie Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906-1912.
190–198 Otis Street; Bekins Company Warehouse	3513/080	Central Freeway Replacement Project Historic Architecture Survey	3S	190–198 Otis Street is eligible for listing in the national register as an individual resource under Criteria A and C, with a period of significance of 1905–1909.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
135 Valencia Street; Knights & Daughters of Pythias Building	3513/083-195	Central Freeway Replacement Project Historic Architecture Survey	3S	135 Valencia Street is eligible for listing in the national register as an individual resource under Criteria A and C, with a period of significance of 1910–1947.
1350–1354 Stevenson Street	3513/196-201	Market and Octavia Survey	3CD	1350–1354 Stevenson Street is a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, which is eligible for listing in the California register under Criterion 1, with a period of significance of 1906–1912.
150 Otis Street; Juvenile Court and Detention Center	3513/208	Article 10	N/A	150 Otis Street is locally designated as an individual resource under local criteria related to architecture, with a period of significance of 1916.
1618–1624 Howard Street	3514/005	Hub Survey	3CS	1618–1624 Howard Street is eligible for listing in the California register as an individual resource under Criterion 3, with a period of significance of 1910.
Path of Gold Light Standards	N/A	Article 10	N/A	The Path of Gold Light Standards is locally designated as an individual resource under local criteria related to architecture, with a period of significance of 1908–1916.
San Francisco Auxiliary Water Supply System	N/A	Local CEQA Review	3	The Auxiliary Water Supply System is eligible for listing in the national register and California register as a historic district under Criteria A/1 and C/3, with a period of significance of 1908–1913.

TABLE 3.A-2. BUILT-ENVIRONMENT RESOURCES IN THE CEQA STUDY AREA

Address; Resource Name (as applicable)	APN(s)	Designation/Eligibility	Assigned Survey Rating (as applicable)⁶⁶	Significance Summary
Market Street Cultural Landscape District	N/A	Local CEQA review	N/A	The Market Street Cultural Landscape District is eligible for listing in the California register as a historic district under Criteria 1 and 3, with periods of significance of 1847–1929 and 1870s–1979 (Criterion 1) and 1979 (Criterion 3).

California Historical Resource Status Codes:

3 = Appears eligible for national register or California register through survey evaluation.

3CD = Appears eligible for California register as a contributor to a California register–eligible district through a survey evaluation.

3CS = Appears eligible for California register as an individual property through survey evaluation.

3D = Appears eligible for national register as a contributor to a national register–eligible district through survey evaluation.

3S = Appears eligible for national register as an individual property through survey evaluation

5S3 = Appears to be individually eligible for local listing or designation through survey evaluation.

APN = Assessor’s Parcel Number

California register = California Register of Historical Resources

CEQA = California Environmental Quality Act

LGBTQ = lesbian, gay, bisexual, transgender, and queer

N/A = not applicable

national register = national register of Historic Places

SoMa = South of Market

TABLE 3.A-3. PREVIOUSLY DOCUMENTED ARCHAEOLOGICAL RESOURCES IN THE HUB PLAN AREA

Trinomial/ Site Name	Reference	Location	Depth	Features	California Register or National Register Eligibility
CA-SFR-28	Kaijankoski and Meyer, 2016; Henn & Scenck, 1972.	Outside the northern edge of the Hub Plan area.	70 feet below ground surface (bgs)	Set of human remains.	Not formally evaluated; however, no longer extant.
CA-SFR-136/H	Vanderslice, 2002	Outside the Hub Plan area at 1166 Howard Street.	6 to 9 feet bgs.	Stone tools, shellfish, faunal remains, and historical artifacts.	Not formally evaluated.
CA-SFR-148	Crawford, 2005; Ramos, 2003	Within the western portion of the Hub Plan area.	6 to 10 feet bgs.	Shellfish fragments, vertebrate faunal remains, and stone tools and debitage.	Not formally evaluated.

Source: ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, prepared for the San Francisco Planning Department, December 2018, p. 4-11. This document contains sensitive archaeological information and is confidential.

California register = California Register of Historical Resources

national register = National Register of Historic Places

CA-SFR-148: Originally identified at depths ranging from 6 to 10 feet below the ground surface during preconstruction excavations for the San Francisco Central Freeway Replacement Project, Alternative 8B, CA-SFR-148 is entirely within the western portion of the Hub Plan area. It consists of an ephemeral prehistoric midden deposit. The midden deposit contained shellfish fragments, vertebrate faunal remains, and stone tools and debitage, the byproduct of lithic tool production (e.g., lithic flakes, shatter, blades, rejected tools).

Archaeological Sensitivity and Potential Prehistoric Archaeological Property Types in the Hub Plan Area and Vicinity, Based on Landform Analysis

This section uses the findings of a geoarchaeological landform analysis performed for the project in the Hub Plan area to gauge the potential for encountering buried archaeological resources and to determine the range of archaeological property types that could be encountered. The full analysis is included in the Hub ARDTP. Landforms are useful analytical units for considering the relationship between landscape history and human activities because each type has a unique set

of physical attributes (e.g., age, depositional environment, stability, accessibility, resources) that condition how humans use them.

Colma formation is the earliest landform with the potential for prehistoric archaeological property in the project area and refers to a sequence of fine marine sediments and aeolian sands and silt deposited throughout the Pleistocene and into the early Holocene. This geologic unit is composed of two components, the older lower component (formed between 120,000 and 80,000 years ago) and the younger upper component (formed between 65,000 and 8,000 years ago). The lower component is considered to have low sensitivity for archaeological resources, while the upper component is considered to have low to moderate sensitivity for archaeological resources. The upper contact of the Colma formation also retains sensitivity for archaeological resources because it would have served as a habitable surface, where exposed, during the Holocene.

Tidal flats formed in the Hub Plan area during a period for which there is documented evidence of human occupation of North America (starting at the Pleistocene/Holocene transition, approximately 12,000 years ago); however, the conditions in which they formed reduce their potential for containing archaeological deposits. For example, although salt marshes and intertidal flats are rich in floral and faunal resources, they are regularly inundated and cannot be used for habitation or resource processing activities that require long periods of time because the ground surface associated with subtidal flats is permanently inundated, human activities would not have occurred directly on the surface. As a result of limited ground surface accessibility for all three landforms (salt marshes, intertidal and subtidal flats), collectively referred to as *tidal flats*, it is anticipated that any evidence of human use of the landscape would be limited to occasional isolated tools and intertidal resource capture facilities (e.g., weirs and traps). Therefore, of the three landforms, only the intertidal flats and salt marshes are anticipated to have moderate sensitivity with respect to prehistoric archaeological resources because of the sparseness of the artifacts; however, the potential for data collection is high. Specifically, intertidal flats occasionally contain isolated prehistoric artifacts that are associated with prehistoric resource collection and processing but very rarely human remains.

Freshwater marshes also date to the Late Pleistocene to Holocene. They form in areas where the permeability of the underlying substrate is less than the rate of water accumulation or where the water table elevation exceeds the elevation of a topographic depression. Marshes act as sediment traps for the surrounding uplands and therefore tend to be landforms with short geologic lifespans. Marshes provide habitat for freshwater wetland vegetation and waterfowl but are intermittently or regularly inundated by water. As a result, these areas tend to be suitable for resource procurement activities rather than habitation or resource processing activities. Therefore, it is anticipated that physical evidence of human use in marshes would be limited to isolated tools associated with resource collection. However, marshes may also contain paleoenvironmental data that, when combined with associated archaeological sites, may address important research questions, as illustrated for the archaeological investigations in

support of the 150 Van Ness Avenue Project. The upland areas around marshes would be ideal for habitation and resource processing activities and would have high sensitivity for containing archaeological resources.

Sand dunes date from the late Pleistocene to the Holocene. They form in environments where there is a ready source of sediment that is small enough to be transported by wind, the wind is frequent enough to transport sufficient quantities of sediment, and few obstacles are present to inhibit the erosion and transport of sediments. Individual dunes can be unstable and migrate over time. Although this process can result in both vertical and horizontal movement of archaeological deposits located on unstable dunes, it can also result in the burial and protection of previously exposed archaeological deposits. Dune landscapes were frequently used by prehistoric peoples for habitation, resource collection, and resource processing. Therefore, it is anticipated that dunes have high potential for containing intact archaeological deposits. The most recent type is the anthropogenic landform, dating to sometime after the historic-period (post-1850). This human-induced modification of the landscape often took the form of “fill,” which is used to raise the elevation of the ground surface and provide structurally suitable materials for construction. The process of filling can bury the pre-development ground surface, which, when cutting has not removed deposits that retain archaeological potential, can result in the burial of archaeological sites. Depending on the fill material’s source of origin, it may contain accumulations of prehistoric, historical, and modern items that have been displaced from the location of their primary deposition. Such items would not be in primary depositional context and, therefore, would not represent intact archaeological deposits. Therefore, anthropogenic landforms are anticipated to have limited prehistoric archaeological sensitivity. However, it is the department’s policy that prehistoric midden, regardless of depositional context, may retain enough information to be considered a significant historic resource under CEQA.

ARCHAEOLOGICAL RESOURCES FROM THE HISTORIC PERIOD

This subsection, describing the archaeological resources from the historic period, is based on the information as presented in the ARDTP.⁶⁷

The historic period for the Hub Plan area began with Spain’s colonization of California, specifically, the founding of Mission Dolores in San Francisco in 1776. San Francisco’s development, which encompasses the 1848 Gold Rush, the 1906 earthquake and fire, industrialization, residential development, commercialization, and automobile-oriented transportation (see historic context section), is reflected in the archaeological record (i.e., the

⁶⁷ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, prepared for the San Francisco Planning Department, December 2018, pp. 4-1 to 4-11. This document contains sensitive archaeological information and is confidential.

physical things left behind from these cultural changes). Historic-period archaeological resources may include, but are not limited to, artifacts and features associated with four archaeological property types including architectural, infrastructure, landscaping, and refuse.

Previously Recorded Historic Archaeological Sites in the Hub Plan Area and Vicinity

Previously recorded archaeological resources and projects, identified during Northwest Information Center record searches, assert that most of the recent archaeological work in San Francisco has been generated from archaeology field investigations, which were designed to identify and mitigate project impacts primarily through the CEQA process. Thirteen projects have occurred in or directly adjacent to the Hub Plan area. Eight of these either identified or evaluated archaeological resources within the Hub Plan area. Five projects documented the resources in archaeological research design and treatment plans as well as archaeological testing and monitoring plans; two of the resources (described below) were historical archaeological deposits.

1500 Mission Street: A cultural resources investigation was prepared for the 1500 Mission Street Project, located in the Hub Plan area. Eleven core excavations and 17-foot-deep mechanical trenching were conducted at the 1500 Mission Street project site to test for prehistoric materials and deposits in areas of anticipated construction excavations where subsurface sensitivity was identified. Although the cores failed to identify prehistoric deposits, some cores provided samples of marsh and burned redwood/peat deposits, which are eligible for the California register. Archaeological trenching yielded a total of 26 features, 15 of which were eligible for the California register. The results of the 1500 Mission Street Project investigation indicate that the project site has reduced sensitivity in areas where direct construction has occurred. The project vicinity maintains increased sensitivity for historic-period and prehistoric resources, based on the results of the recent archaeological investigations and vertical extents of Holocene-aged deposits that underlie the project vicinity.

Trench 10 Historic-Period Dump: Originally identified at depths ranging from 24 to 42 inches below the ground surface during exploratory backhoe excavations for the Van Ness Avenue Bus Rapid Transit Project, the Trench 10 Historic-period Dump is in the Hub Plan area, at the intersection of South Van Ness Avenue and Mission Street, continuing north toward Van Ness Avenue and Market Street. It consists of an intact historic refuse deposit (i.e., dump), which can be split into three components: predating, contemporaneous, and dating after the 1906 earthquake. The cultural material included broken domestic and personal items, such as whole glass bottles for alcohol, faunal remains, and some structural debris. Analysis of this feature is ongoing.

Potential for Encountering Historic Archaeological Property Types in the Hub Plan Area and Vicinity

Historic research, based on U.S. Coast Survey and Sanborn Fire Insurance Company map analysis, revealed that in the Hub Plan area residential, commercial, and industrial

development were the predominant activities between 1853 and 1950. According to the research, some areas in the Hub Plan area have remained active roadways or vacant lots since their construction in the historic period. Because these areas have not been subject to substantive residential or commercial development, they have been interpreted as having low historical archaeological sensitivity. There are also areas that retain moderate to high sensitivity, including areas of residential development, named structures on Sanborn Fire Insurance Company maps, and areas within 75 feet of previously identified historical archaeological resources. These subjects and areas can be defined by property type, thereby breaking down the components of the structures into elements that are recognizable in the historic archaeological record.

Four historic-period archaeological property types have the potential to be present in the Hub Plan area: architectural, infrastructure, landscaping, and refuse. Each historic-period property type is listed in **Table 3.A-4**.

TABLE 3.A-4. HISTORIC-PERIOD ARCHAEOLOGICAL PROPERTY TYPES

Property Type	Features – Characteristics
Architectural	Foundations – Brick alignments, concrete slabs, piers, and pilings Builder’s Trenches and Walls – Concrete, brick, or wood, in situ or collapsed Decking/Planking – Boards, in situ or collapsed Floors – Concrete, wood, or tile
Infrastructure	Utility Lines— Alignments of sewer pipes, power lines, water lines, pipes, or trenches or pit/post holes associated with the installation of these types of utilities Transportation Routes – Roads, trails, tracks, and vehicular parking or storage areas
Landscaping	Gardens – Alignments of pathways, fencing, planting beds, decorative elements, and planting holes Agricultural – Terraces, plow scars, and irrigation
Refuse	Contents of Hollow Filled Features – Pits, privies, or wells Sheet Refuse – Refuse accumulated over time Dumps – Waste piles or open dumps

REGULATORY FRAMEWORK

The following section summarizes the plans and policies of federal, state, and local agencies that have regulatory control over cultural resources—inclusive of built-environment resources, archaeological resources, and human remains—within the Hub Plan area.

FEDERAL REGULATIONS

Although the Hub Plan, the two individual development projects, and the Hub HSD are not anticipated to require compliance with section 106 of the National Historic Preservation Act, the

national register and federal guidelines related to the treatment of cultural resources are relevant for the purposes of determining whether cultural resources, as defined under CEQA, are present and guiding the treatment of such resources. The sections below summarize the relevant federal regulations and guidelines.

NATIONAL HISTORIC PRESERVATION ACT AND NATIONAL REGISTER OF HISTORIC PLACES

Archaeological and architectural resources (buildings and structures) are protected through the National Historic Preservation Act (16 U.S. Code 470f), Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. The National Historic Preservation Act requires project review for effects on historic properties only when projects involve federal funding or permitting or occur on federal land; therefore, it is not applicable to discretionary actions at the municipal level. However, the National Historic Preservation Act establishes the national register, which provides a framework for resource evaluation and informs the process of determining impacts on historical resources under CEQA.

The national register is the nation's official comprehensive inventory of historic resources. Administered by the National Park Service, the national register includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. Typically, a resource that is more than 50 years of age is eligible for listing in the national register if it meets any one of the four eligibility criteria *and* retains sufficient historical integrity. A resource less than 50 years old may be eligible if it can be demonstrated that it is of "exceptional importance" or a contributor to a historic district. National register criteria are defined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation*.

A structure, site, building, district, or object would be eligible for listing in the national register if it can be demonstrated that it meets at least one of the following four evaluative criteria:

- **Criterion A (Event):** Properties associated with events that have made a significant contribution to the broad patterns of our history;
- **Criterion B (Person):** Properties associated with the lives of persons significant in our past;
- **Criterion C (Design/Construction):** Properties that embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant distinguishable entity whose components lack individual distinction; and
- **Criterion D (Information Potential):** Properties that have yielded, or may be likely to yield, information important in prehistory or history.

A resource can be significant to American history, architecture, archaeology, engineering, and/or culture at the national, state, or local level. In addition to meeting at least one of the four criteria, a property or district must retain integrity, meaning that it must have the ability to

convey its significance through the retention of seven aspects, or qualities, that, in various combinations, define integrity:

- **Location:** Place where the historic property was constructed;
- **Design:** Combination of elements that create the form, plans, space, structure, and style of the property;
- **Setting:** The physical environment of the historic property, inclusive of the landscape and spatial relationships of the buildings;
- **Materials:** The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form the historic property;
- **Workmanship:** Physical evidence of the crafts of a particular culture or people during any given period in history;
- **Feeling:** The property's expression of the aesthetic or historic sense of a particular period of time; and
- **Association:** Direct link between an important historic event or person and a historic property.

Properties that are listed in the national register, as well as properties that are formally determined to be eligible for listing in the national register, are automatically listed in the California register and, thus, are considered historical resources under CEQA.

SECRETARY OF THE INTERIOR'S STANDARDS FOR REHABILITATION AND ILLUSTRATED GUIDELINES FOR REHABILITATING HISTORIC BUILDINGS

The secretary's standards and secretary's guidelines provide guidance for reviewing work on historic properties.⁶⁸ Developed by the National Park Service for reviewing certified rehabilitation tax credit projects, the secretary's standards have been adopted by local government bodies across the country for reviewing proposed work on historic properties under local preservation ordinances. The secretary's standards provide a useful analytical tool

⁶⁸ U.S. Department of Interior, National Park Service, Cultural Resources, Preservation Assistance Division, *Secretary of the Interior's Standards for Rehabilitation and Illustrated Guidelines for Rehabilitating Historic Buildings*, 1992. The standards, revised in 1992, were codified as 36 Code of Federal Regulations (CFR) part 68.3 in the July 12, 1995, *Federal Register* (Vol. 60, No. 133). The revision replaces the 1978 and 1983 versions of 36 CFR 68 titled *The Secretary of the Interior's Standards for Historic Preservation Projects*. The 36 CFR 68.3 standards are applied to all grant-in-aid development projects assisted through the National Historic Preservation Fund. Another set of standards, 36 CFR 67.7, focuses on "certified historic structures," as defined by the IRS Code of 1986. The standards in 36 CFR 67.7 are used primarily when property owners are seeking certification for federal tax benefits. The two sets of standards vary slightly, but the differences are primarily technical and nonsubstantive in nature. The guidelines, however, are not codified in the *Federal Register*.

for understanding and describing the potential impacts of changes to historic resources, including new construction inside or adjoining historic districts.

STATE REGULATIONS

California implements the National Historic Preservation Act through its statewide comprehensive cultural resource preservation programs. The California Office of Historic Preservation, an office of the California DPR, implements policies of the National Historic Preservation Act on a statewide level. The California Office of Historic Preservation also maintains the California Historical Resources Inventory. The State Historic Preservation Officer is an appointed official who implements historic preservation programs within the state's jurisdiction.

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

The California register is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and indicating which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (Public Resources Code section 5024.1(a)). The California register criteria are based on the national register criteria (Public Resources Code section 5024.1(b)). Certain resources are determined by CEQA to be automatically included in the California register, including California properties formally eligible for or listed in the national register. To be eligible for the California register as a historical resource, a resource must be significant at the local, state, and/or federal level under one or more of the following criteria:

- **Criterion 1 (Events):** Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the U.S.;
- **Criterion 2 (Persons):** Resources that are associated with the lives of persons important to local, California, or national history;
- **Criterion 3 (Design/Construction):** Resources that embody the distinctive characteristics of a type, period, region, or method of construction; represent the work of a master; or possess high artistic values; or
- **Criterion 4 (Archaeological/Source of New Information):** Resources or sites that have yielded or have the potential to yield information important to the prehistory or history of the local area, California, or the nation.

As for the national register, a significant historical resource must possess integrity in addition to meeting the significance criteria in order to be considered eligible for listing in the California register. Consideration of integrity for evaluation of California register eligibility follows the definitions and criteria from National Park Service *National Register Bulletin 15*.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

CEQA, as codified in Public Resources Code section 21000 et seq. and implemented by the CEQA Guidelines (14 CCR section 15000 et seq.), is the principal statute governing environmental review of projects in California. As stated above, CEQA defines a historical resource as a property listed in, or eligible for listing in, the California register; included in a qualifying local register; or determined by lead agency to be historically significant. In order to be considered a historical resource, a property must generally be at least 50 years old; when acting as CEQA lead agency, the department uses a threshold of 45 years.⁶⁹ Section 21084.1 of the Public Resources Code and section 15064.5 of the CEQA Guidelines define a historical resource for purposes of CEQA.

CEQA requires lead agencies to determine if a proposed project would have a significant effect on important historical resources or unique archaeological resources. If a lead agency determines that an archaeological site is a historical resource, the provisions of Public Resources Code section 21084.1 and CEQA Guidelines section 15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site may meet the threshold of Public Resources Code section 21083.2 regarding unique archaeological resources. A unique archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets the following criteria:

- Contains information needed to answer important scientific research questions, and that there is a demonstrable public interest in that information.
- Has a special and particular quality, such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person (Public Resources Code section 21083.2(g)).

The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of the project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines section 15064.5(c)(4)). In addition, projects that comply with the secretary's standards benefit from a regulatory presumption under CEQA that they would have a less-than-significant impact on a historical resource (14 CCR 15126.4(b)(1)). Projects that do not comply with the secretary's standards may or may not cause a substantial adverse change in the significance of a historical resource and must be subject to further analysis in order to assess whether they result in material impairment of a historical resource's significance.

⁶⁹ As stated in the California Office of Historic Preservation's Technical Assistance Series #6, a resource that has achieved significance more recently than 50 years can still be determined eligible for California register listing if it can be demonstrated that sufficient time has passed "to obtain a scholarly perspective on the events or individuals associated with the resource."

THE TREATMENT OF HUMAN REMAINS

Under state law, human remains and associated burial items may be significant resources in two ways. They may be significant to descendant communities because of lineage connections or for patrimonial, cultural, lineage, or religious reasons, or they may be important to the scientific community (e.g., prehistorians, epidemiologists, physical anthropologists). The specific interest of some descendant groups in ancestral burials is a matter of law, such as for Native Americans (CEQA Guidelines section 15064.5(d), Public Resources Code section 5097.98). In other cases, the concerns of the associated descendant group regarding the appropriate treatment and disposition of discovered human burials may become known only through outreach. Beliefs concerning appropriate treatment, study, and disposition of human remains and associated burial items may be inconsistent or in conflict between descendant and scientific communities.

With respect to the potential discovery of human remains, section 7050.5 of the California Health and Safety Code states that every person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law is guilty of a misdemeanor, except as provided in section 5097.99 of the Public Resources Code. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of section 5097.94 of the Public Resources Code or any person authorized to implement section 5097.98 of the Public Resources Code.

CEQA, and other state regulations concerning Native American human remains, provides the following procedural requirements to assist in avoiding potential adverse effects on human remains within the context of their value to both descendant communities and the scientific community:

- a) When an initial study identifies the existence of Native American human remains or probable likelihood that a project would affect Native American human remains, the lead agency is to contact and work with the appropriate Native American representatives identified through the Native American Heritage Commission to develop an agreement for the treatment and disposal of the human remains and any associated burial items (CEQA Guidelines section 15064.5(d), Public Resources Code section 5097.98).
- b) In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, the project head foreman and/or project sponsor shall immediately notify the City's Environmental Review Officer and the county coroner. There shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains were discovered has determined, in accordance with chapter 10 (commencing with section 27460) of part 3 of division 2 of title 3 of the Government Code, that the remains are not subject to the provisions of section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner, and cause of any

death and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

- c) If the coroner determines that the remains are not subject to his or her authority and recognizes the human remains to be those of a Native American, or has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission (California Health and Safety Code section 7050.5).
- d) After notification, following the procedures outlined in Public Resources Code section 5097.98, the Native American Heritage Commission notifies the most likely descendant, if possible, who makes recommendations for treatment of the remains. Also, knowing or willful possession of Native American human remains or artifacts taken from a grave or cairn is a felony under California law (Public Resources Code section 5097.99).

PUBLIC RESOURCES CODE SECTION 5097.9

Public Resources Code section 5097.9 states that no public agency or private party on public property shall “interfere with the free expression or exercise of Native American religion.” The code further states that:

No such agency or party [shall] cause severe or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine ... except on a clear and convincing showing that the public interest and necessity so require. County and city lands are exempt from this provision, except for parklands larger than 100 acres.

LOCAL REGULATIONS, PLANS, AND POLICIES

SAN FRANCISCO GENERAL PLAN

The San Francisco General Plan Urban Design Element, originally adopted in 1986, addresses issues related to historic preservation by providing policies that emphasize preservation of notable landmarks and historic features, remodeling older buildings, and respecting the character of older buildings adjacent to new development.

- Policy 2.4: Preserve notable landmarks and areas of historic, architectural, or aesthetic value and promote the preservation of other buildings and features that provide continuity with past development.
- Policy 2.5: Use care in remodeling of older buildings in order to enhance rather than weaken the original character of such buildings.
- Policy 2.6: Respect the character of older development nearby in the design of new buildings.

The City's commitment to historic preservation is codified in Planning Code section 101.1(b), which establishes eight general plan priority policies. Priority Policy 7 of section 101.1(b) of the planning code addresses the City's desire to preserve landmarks and historic buildings.

- Priority Policy 7: That landmarks and historic buildings be preserved.⁷⁰

The San Francisco General Plan Housing Element also includes a relevant policy that calls for the preservation of landmark buildings and maintaining consistency of historic districts.

- Policy 11.7: Respect San Francisco's historic fabric by preserving landmark buildings and ensuring consistency with historic districts.

MARKET AND OCTAVIA AREA PLAN

Put into effect in 2007, the Market and Octavia Area Plan was prepared by the department to guide new development and public realm improvements in the area surrounding the intersection of Market Street and Octavia Boulevard in central San Francisco. The Market and Octavia Area Plan area encompasses nearly the entirety of the Hub Plan area; as noted above, the Hub Plan constitutes an amendment to the Market and Octavia Area Plan. The Market and Octavia Area Plan includes Objective 3.2: "Promote the preservation of notable historic landmarks, individual historic buildings, and features that help to provide continuity with the past." Objective 3.2 is supported by several policies that encourage the protection of historical resources within the Market and Octavia Plan area by promoting future survey and designation efforts, encouraging building rehabilitation in conformance with the secretary's standards, and encouraging infill development that is respectful of the character of the surrounding historic context.

SAN FRANCISCO HISTORIC PRESERVATION COMMISSION AND PLANNING CODE, ARTICLES 10 AND 11

The San Francisco Historic Preservation Commission is a seven-member body that makes recommendations directly to the board of supervisors regarding the designation of landmark buildings, historic districts, and significant buildings. The commission approves certificates of appropriateness for individual landmarks and landmark districts designated under article 10 and permits to alter for individual properties and conservation districts listed under article 11. The Historic Preservation Commission reviews and comments on CEQA documents for projects that affect historic resources as well as projects that are subject to review under section 106 of the National Historic Preservation Act.

The San Francisco Charter gives the San Francisco Historic Preservation Commission the ability to identify, designate, and protect historic landmarks (including buildings, sites, objects, and districts) from inappropriate alterations. The planning code, in article 10, contains regulations to

⁷⁰ City and County of San Francisco, San Francisco Planning Code, section 101.1(b), June 23, 2018, [http://library.amlegal.com/nxt/gateway.dll/California/planning/article1generalzoningprovisions?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:sanfrancisco_ca\\$anc=JD_102.32](http://library.amlegal.com/nxt/gateway.dll/California/planning/article1generalzoningprovisions?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$anc=JD_102.32), accessed July 4, 2018.

implement the way the historic preservation commission exercises its authority. Since the adoption of article 10 in 1967, the City has designated 286 landmark sites and 14 historic districts under article 10.⁷¹ Article 11 of the planning code, which was adopted on September 17, 1985, contains similar regulations, and implements the authority the historic preservation commission has under the San Francisco Charter to establish Significant and Contributory Buildings, as well as conservation districts, in the C-3 Downtown Commercial zoning district. Article 11 establishes a register of conservation districts and individual properties in the area. As described under “Built-Environment Resources in the CEQA Study Area” above, any property that has been locally designated as an article 10 landmark; a Category I, II, III, or IV building under article 11; or a contributor to an article 10 or article 11 district is considered a CEQA historical resource. Article 11 Category V buildings are not considered CEQA historical resources on the basis of their article 11 designation.⁷²

Section 128 of the planning code allows transferrable development rights from properties designated under article 10 and as a “Significant” or “Contributory” building under article 11 within the C-3 downtown zoning district to eligible transfer lots.

IMPACTS AND MITIGATION MEASURES

This section describes the impact analysis related to cultural resources for the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street. It describes the methods used to determine the program- and project-level impacts and lists the thresholds used to conclude whether an impact would be significant under CEQA. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the discussion of each identified significant impact.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural

⁷¹ City and County of San Francisco, *Article 10: Preservation of Historical Architectural and Aesthetic Landmarks*, 2019, [http://library.amlegal.com/nxt/gateway.dll/California/planning/article10preservationofhistoricalarchite?f=templates\\$fn=altmain-nf.htm\\$q=\[field%20folio-destination-name:%27Article%2010%27\]\\$x=Advanced#JD_Article10](http://library.amlegal.com/nxt/gateway.dll/California/planning/article10preservationofhistoricalarchite?f=templates$fn=altmain-nf.htm$q=[field%20folio-destination-name:%27Article%2010%27]$x=Advanced#JD_Article10), accessed July 2, 2019.

⁷² San Francisco Planning Department, *San Francisco Preservation Bulletin No. 16: City and County of San Francisco Planning Department CEQA Review Procedures for Historic Resources*. March 2008, <https://sf-planning.org/sites/default/files/FileCenter/Documents/5340-PresBulletin16CEQA.pdf>, accessed December 10, 2018.

change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

SIGNIFICANCE CRITERIA

The Hub Plan and the two individual development projects would be considered to have a significant impact on historical resources if they would result in any of the conditions listed below. As previously noted, tribal cultural resources are addressed in their own section in the initial study (Appendix B to this EIR).

- Cause a substantial adverse change in the significance of a historical resource, as defined in Public Resources Code section 21084.1 and CEQA Guidelines section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code.
- Cause a substantial adverse change in the significance of an archaeological resource, pursuant to Public Resources Code section 21083.2 and CEQA Guidelines section 15064.5.
- Disturb any human remains, including those interred outside of formal cemeteries.

Section 15064.5(b)(1) of the CEQA Guidelines defines “substantial adverse change to a historical resource” as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be materially impaired.” Material impairment of a historical resource, as defined in CEQA Guidelines section 15064.5(b)(2), occurs when a project “demolishes or materially alters in an adverse manner” those physical characteristics of the resource that express its significance and justify its inclusion in, or eligibility for listing in, the California register or a qualified local register of historical resources or evaluation as historically significant in a qualified local survey.

APPROACH TO ANALYSIS

The following section analyzes potential impacts on historical resources, archaeological resources, and human remains that may be caused by implementation of the Hub Plan and the construction of two individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Program-level analysis is provided for changes in land use controls that would be implemented as a result of the Hub Plan. The following impact evaluation considers the degree of change to cultural resources that could occur as a result of the changes in land use controls proposed by, and subsequent development projects incentivized by, the Hub Plan, although implementation alone would not immediately cause any physical changes to cultural resources. Project-level analysis is provided for the two individual development projects, as well as the streetscape and street network improvements proposed under the Hub Plan, because the manner in which these activities would physically change the environment is known at a sufficient level of detail to support a more detailed analysis of potential significant impacts.

METHODS OF ANALYZING IMPACTS ON HISTORICAL RESOURCES

Impacts of program- and project-level activities are analyzed for built-environment properties within the Hub Plan area that meet the definition of historical resources, as outlined in Public Resources Code section 21084.1 and CEQA Guidelines section 15064.5, and described in the *Environmental Setting*, above. Per CEQA Guidelines section 15064.5(b)(2), the analysis considers the potential for project activities to materially impair the significance of a historical resource by causing direct changes to the physical characteristics of that resource as well as by causing changes in its immediate setting.

Considered at the project level, material impairment to the significance of a historical resource could occur if project activities demolish, destroy, relocate, or alter in an adverse manner the resource in its entirety or its character-defining features. Alteration in an adverse manner could include activities that involve the reuse of a historical resource but introduce changes not in conformance with the secretary's standards. Additionally, new construction within the vicinity of a historical resource could feasibly cause material impairment if the new construction removes or obscures components of the resource's immediate setting that allow it to convey its significance. Considered at the program level, changes to land use controls proposed by the Hub Plan could cause material impairment to the significance of historical resources because land uses and increased height limits may intensify development within the Hub Plan area, which has the potential to result in the demolition of historical resources and/or the substantial alteration of their historic setting. However, the precise uses, heights, and designs adopted by future development projects newly allowed under the Hub Plan remain unknown at this time. Because it cannot be stated definitively whether projects allowed under the Hub Plan would retain historical resources or rehabilitate them in accordance with the secretary's standards, or if projects would degrade the resources' settings, the program-level components are analyzed for their potential to lead to future projects that materially impair the significance of historical resources.

Program- and project-level components are also analyzed for their potential to cause a substantial adverse change to historic districts located within the Hub Plan area. Material impairment to the significance of a historic district can feasibly occur as a result of the demolition or alteration in an adverse manner of district contributors as well as the construction of infill development or public realm improvements within or adjacent to the district boundaries that is incompatible with the physical characteristics that convey the district's significance. If one or more district contributors are demolished or altered in an adverse manner, the district may not automatically experience substantial adverse change. Rather, substantial adverse change to a historic district would occur if it is demonstrated that the program- or project-level components would disrupt the concentration, linkage, or continuity of district contributors that allow the district as a whole to convey its significance and remain discernible as a geographically and/or thematically linked entity.

Streetlights within the Hub Plan area that have the potential for being historic-age resources would be retained and moved to locations near their current locations or salvaged for reinstallation elsewhere in San Francisco. If located within a historic district, such streetlights would be retained and reused elsewhere within the same district. Because the projects under the Hub Plan or the individual development projects would not have the potential to materially impair these features, further analysis of the streetlights is not included below.

METHODS OF ANALYZING IMPACTS ON ARCHAEOLOGICAL RESOURCES

Impacts of program- and project-level activities are analyzed for prehistoric and historic archaeological resources within the Hub Plan area that meet the definition of historical resources, as outlined in Public Resources Code section 21084.1 and CEQA Guidelines section 15064.5, and described in the *Environmental Setting*, above. Per CEQA Guidelines section 15064.5(b)(2), the analysis considers the potential for project activities to materially impair the significance of a historical resource by causing direct changes to the physical characteristics of that resource.

Two approaches to impact analysis were used to assess potential impacts on known and unknown archaeological resources. One multi-component, one historic-period, and two prehistoric archaeological resources have been previously recorded within the Hub Plan area. The analysis of impacts on known resources consisted of comparing the locations of known archaeological resources against proposed program- and project-level construction activities. The analysis of impacts on unknown archaeological resources consisted of comparing areas identified as being archaeologically sensitive, based on the findings of the ARDTP, to proposed program- and project-level construction activities. In both instances, this analysis was used to determine whether potential impacts on archaeological resources are possible.

Sensitivity Analysis of Known Resources

Archaeological resources within the Hub Plan area were identified through a records review and archival research. The locations and depths of the resources were then compared to the locations and depths of proposed project-level construction activities to determine whether project activities are likely to encounter known archaeological resources.

Sensitivity Analysis of Unknown Resources

As discussed in the Archaeological Setting section, integrating landform, geotechnical, and historic map analyses can predict where and at what depth potential resources may be encountered in the Hub Plan area. The final analysis compared this information to proposed project activities to analyze potential impacts.

- *Archival Research:* Historians and archaeologists conducted in-depth research to establish a general and site-specific historical context, identify areas with sensitivity for historical archaeological sites, and identify areas where historical development

activities dramatically altered the landscape, reducing the potential for prehistoric and historical archaeological sites. Sources consulted included historical maps, aerials, photographs, and secondary historical writings. Research was conducted at the San Francisco Public Library and the report preparers' library. Online resources consulted include the Sanborn Fire Insurance maps available from the San Francisco Public Library, other historic maps from the David Rumsey Map Collection, historical aerials from Historicaerials.com, and Google Earth historical imagery.

- *Review of Nearby Sites and Archaeological Studies:* On February 6, 2018, a cultural resources records review was performed at the Northwest Information Center at Sonoma State University in Rohnert Park. The purpose of the review was to identify any supplemental archaeological resources or research from within or directly adjacent to the Hub Plan area that were not included in the records provided by the department. The findings from this review were combined with the information provided in the City records and represent a complete list of available archaeological studies and resources as of the writing of this document.
- *Native American Outreach:* The Native American Heritage Commission was contacted on October 4, 2018, to identify, using the Sacred Land File, any areas of concern within the Hub Plan area or Native American properties. Correspondence associated with Native American outreach conducted as part of the ARDTP can be found in Appendix A of the ARDTP. On December 11, 2018, Andy Galvan of the Ohlone Indian tribe indicated that he would like to be consulted on the project. A summary of this consultation is included in the tribal cultural resources section of the initial study (Appendix B). In addition, correspondence between the department and local Native American representatives regarding tribal cultural resources is included in the tribal cultural resources section in the initial study.
- *Geoarchaeological Analysis:* A field geoarchaeological study was performed to accurately define archaeological sensitivity in the Hub Plan area. Using the analytical framework provided in the *Prehistoric Archaeological Investigations in the Project and Vicinity* section, the study consisted of excavating and analyzing 15 geoprobe borings in strategic locations within the Hub Plan area. Borings were excavated at a depth of 40 feet below ground surface; the sediment samples collected from the boring effort were analyzed in a laboratory to determine the depositional context and archaeological sensitivity.
- *Historic Map Analysis:* Urban historical archaeological sensitivity is based on knowledge of the spatial organization of historic sites and the types of activities that result in the deposition of objects that create archaeological deposits. Archival and historic map analyses were the primary methods used to gauge effects on the sensitivity of the Hub Plan area. U.S. Coast Surveys and Sanborn Fire Insurance

Company maps revealed that early residential, commercial, and industrial development was the predominant activity in the Hub Plan area from the mid-19th to the mid-20th centuries.⁷³

METHODS OF ANALYZING IMPACTS ON HUMAN REMAINS OR UNASSOCIATED FUNERARY OBJECTS

The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the Office of the Chief Medical Examiner of the city and, in the event of the medical examiner's determination that the human remains are Native American remains, notification of the California Native American Heritage Commission, which shall appoint a most likely descendant (Public Resources Code section 5097.98). The environmental review officer shall also be immediately notified upon discovery of human remains. The archaeological consultant, project sponsor, Environmental Review Officer, and most likely descendant make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines section 15064.5(d)) within six days of the discovery of the human remains. This proposed timing shall not preclude the Public Resources Code section 5097.98 requirement that descendants make recommendations or preferences for treatment within 48 hours of being granted access to the site. The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations compels the project sponsor and the environmental review officer to accept recommendations of a most likely descendant. The archaeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archaeological consultant and the environmental review officer. If no agreement is reached, state regulations shall be followed including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).

⁷³ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD), San Francisco, California*, prepared for the San Francisco Planning Department, December 2018, p. 6-33. This document contains sensitive archaeological information and is confidential.

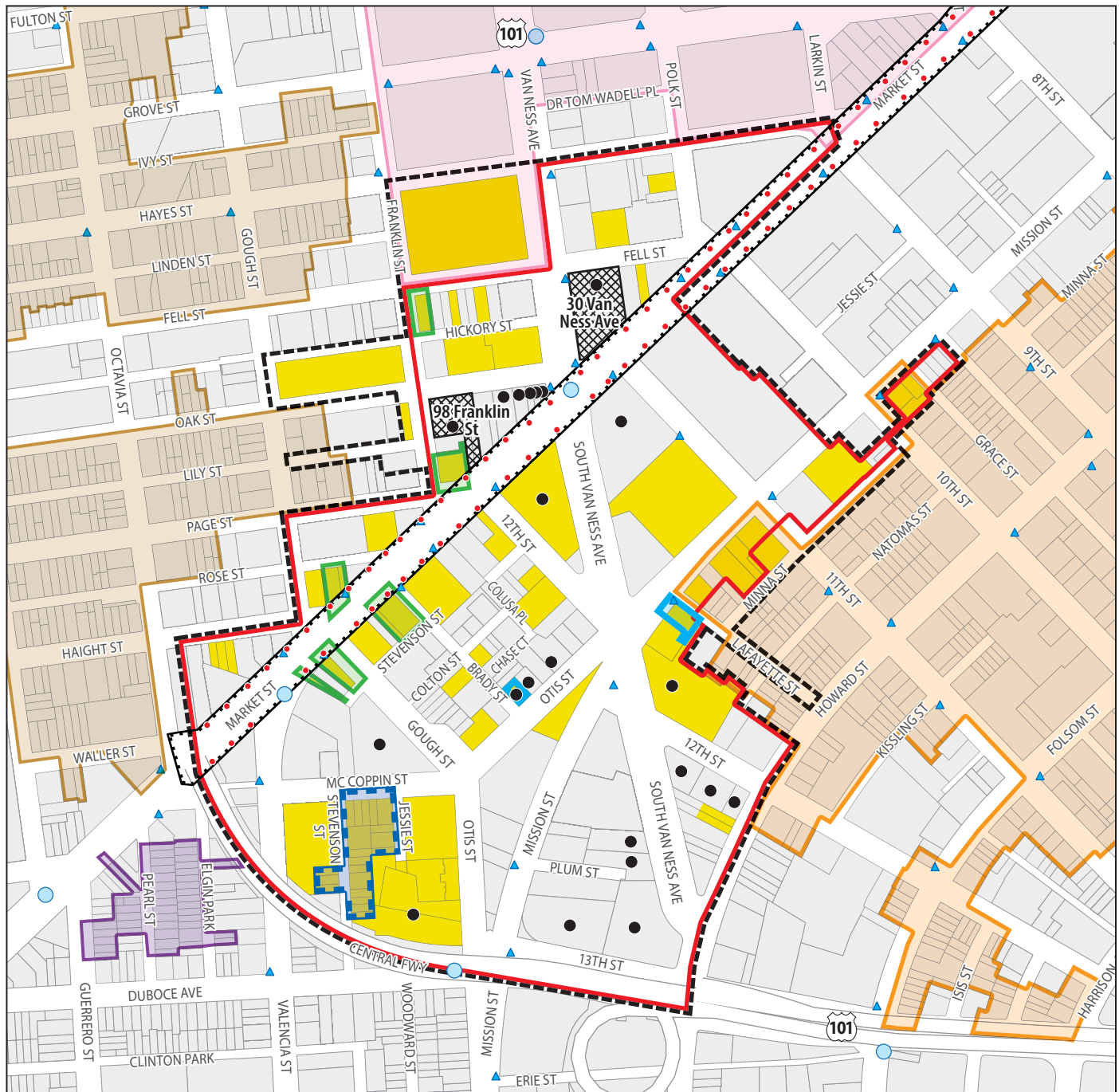
IMPACT EVALUATION

Impact CUL-1: The Hub Plan could cause a substantial adverse change in the significance of individual built-environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code. (Significant and Unavoidable with Mitigation)

The following analysis discusses potential impacts that could be caused by components of the Hub Plan, which include subsequent development projects (with the exception of the individual projects at 30 Van Ness Avenue and 98 Franklin Street, which are analyzed at the project level under Impact CUL-2, below) occurring as a result of land use control changes and incentives as well as streetscape and street network improvements. Mitigation measures are presented to reduce or avoid the identified impacts of the land use control changes and streetscape and street network improvements.

The objectives of the Hub Plan include encouraging new development, which would be accomplished through implementing changes in zoning controls across portions of the Hub Plan area in favor of allowed land uses and urban forms that promote the construction of new housing. To accomplish this objective, the Hub Plan would introduce changes in existing land controls and zoning to provide greater flexibility in allowed uses in the Hub Plan area and modify height and bulk limits on 18 specific sites. See **Table 2-1**, p. 2-24, in Chapter 2, Project Description, for a full list of existing and proposed height limits under the Hub Plan. **Figure 3.A-3** shows these 18 sites in relation to the built-environment resources and historic districts.

In total, it is anticipated that implementation of the Hub Plan would result in increased development throughout the Hub Plan area, particularly on the 18 sites where a height increase is proposed. Although implementation of the Hub Plan would not immediately change the significance of a historical resource, for the purposes of the analysis, a foreseeable result of zoning control changes proposed under the Hub Plan could be demolition of built historic resources (i.e., individually listed/eligible-for-listing resources or historic district contributors) or their alteration in an adverse manner. Specific details are not yet known regarding individual development projects that may be proposed within the Hub Plan area following plan implementation or changes in allowable uses and height and bulk districts (with the exception of the individual projects at 30 Van Ness Avenue and 98 Franklin Street, which are analyzed at the project-level under Impact CUL-2, below). The Hub Plan does not require new development projects occurring on sites with built-environment resources to rehabilitate those resources in conformance with the secretary's standards. Therefore, implementation of the Hub Plan may result in demolition of built-environment resources or alteration in an adverse manner throughout the Hub Plan area.



Legend

- CEQA Study Area
- The Hub Plan Area
- Individual Development Project Site
- Individual CEQA Historical Resource
- Path of Gold Light Standard
- Sites with Height Limit Increases Under the Hub Plan

Historic Districts

- Auxiliary Water Supply System Cistern
- ▲ Auxiliary Water Supply System Hydrant
- Civic Center Landmark District
- Elgin Park-Pearl Street Reconstruction Historic District
- Hayes Valley Residential Historic District
- Jessie-McCoppin-Stevenson Streets Reconstruction Hist. District
- Market Street Cultural Landscape District
- Market Street Masonry Landmark District
- SOMA LGBTQ Historic District
- Western SOMA Light Industrial and Residential Historic District

Note: Some historic districts extend outside the boundary of the map.



ICF Graphics... 0070017 (6-27-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.A-3
The Hub Plan Built Environment Resources and Height Increases

The streetscape and street network improvements that are proposed by the Hub Plan would include the following types of activities: widening sidewalks; introducing bicycle lanes, protected bikeways, and vehicular traffic-calming features, such as bulb-outs; upgrading streetlights and adding new signalized crossings; reconfiguring vehicular traffic lanes and street-side vehicular parking spaces; inserting new planted medians; and introducing new green spaces and street trees. The Hub Plan has developed design recommendations for several major streets within the Hub Plan area. Selected alleys would also be improved to enhance the experience for people walking. Streetscape and street network improvements would have the potential to materially impair a built-environment resource in instances when such projects demolish or alter in an adverse manner the character-defining features of a resource or substantially change the immediate surroundings to the extent that the integrity is degraded and can no longer convey its significance.

IMPACTS ON INDIVIDUAL BUILT-ENVIRONMENT RESOURCES

Built-environment resources that are individually listed in, or determined eligible for listing in, historic registers are located on sites that are proposed for changes in allowable land uses or changes in maximum height limits. Changes in allowable land uses may result in reuse or redevelopment of sites within the Hub Plan area, with the potential to demolish or substantially alter historical resources. In addition, it is likely that future development would occur specifically within the 18 sites where height and bulk limits would increase as a result of the Hub Plan. Three of these sites contain listed or eligible historical resources and are considered particularly likely sites for future development due to the proposed increase in height and bulk limits.⁷⁴ These include:

- 170 Otis Street, an existing eight-story building where the maximum allowable height would be increased from 85 to 150 feet;
- 10 South Van Ness Avenue, an existing one-story building where the maximum allowable height would be increased from 400 to 590 feet over a portion of the site; and
- 99 South Van Ness Avenue, an existing two-story building where the maximum allowable height would be increased from 120 to 250 feet.

Subsequent development resulting from the proposed increase in height and bulk limits under the Hub Plan could also be constructed within the immediate vicinity of (i.e., within one parcel from) historical built-environment resources. In such cases, it is possible that the new

⁷⁴ One additional site within the Hub Plan area that is proposed for a height increase, 14–18 Otis Street, contained a historical resource at the time of the NOP for the current EIR. The historical resource underwent separate environmental review and was subsequently approved for demolition under Case No. 2015-010013ENV prior to the publication of this EIR. 14–18 Otis Street is therefore not considered a historical resource for the purposes of this EIR.

construction would be of a scale that is incompatible with significant characteristics of the adjacent historical resource, or would separate a resource from aspects of its immediate setting that allow it to express its significance. Individual built-environment resources that are located adjacent to the one or more of the 18 sites that could experience height increases include 1618–1624 Howard Street, 1601–1605 Market Street, 1500 Mission Street, 1600 Mission Street, 1563 Mission Street, 25 Van Ness Avenue, 42–50 12th Street, and 56–70 12th Street. In these instances, new construction occurring under the Hub Plan may be substantially taller than the adjacent built-environment resources. However, each of these individual built-environment resources is significant for its architectural characteristics or as an example of a particular building typology and development pattern (e.g., an early 20th-century automobile garage) that would remain discernible even within a changed setting featuring substantially taller buildings in the vicinity. Furthermore, none of these resources has significance that is directly tied to nearby buildings within its setting that may be demolished and redeveloped as a result of subsequent development under the Hub Plan. Therefore, subsequent development allowed under the Hub Plan would not change the setting of any adjacent individual built-environment resource to the extent that its significance would be materially impaired. The potential for new construction to cause vibration that would materially impair the significance of adjacent built-environment resources is discussed under Impact CUL-3, below.

Streetscape and street network improvements proposed under the Hub Plan are also analyzed for potential impacts on individual built-environment resources. These changes would occur within the public right-of-way. Only one individually designated historical resource within the Hub Plan area, the Path of Gold light standards, is located within the public right-of-way. This resource lines both sides of Market Street between The Embarcadero and Castro Street and extends through the Hub Plan area. However, the Path of Gold light standards do not overlap any locations within the Hub Plan area where streetscape and street network improvements would occur. Additionally, the majority of the individual built-environment resources in the Hub Plan area that are adjacent to the streets and alleys where streetscape and street network improvements are proposed—including Gough Street, Otis Street, South Van Ness Avenue, Oak Street, and 12th Street—do not have character-defining features that extend into the public right-of-way or convey the resource’s significance through a close physical or aesthetic relationship to the specific materials and design of the surrounding streetscape. 170 Otis Street features a character-defining pedestrian plaza that has brick paving extending across the public sidewalk to Otis Street. However, the improvements proposed at Otis Street adjacent to this resource involve the introduction of a southbound transit lane and would not require the removal of the red brick paving, and would not disrupt circulation paths into the character-defining plaza. As a result, the proposed streetscape and street network work is not anticipated to involve the demolition or substantial adverse change in the significance of an individual built-environment resource.

Regarding potential impacts on a built-environment resource's setting, streetscape and street network improvements have a low likelihood of causing a substantial adverse change in the significance of any individual built-environment resource that lies adjacent to the proposed area of work. Generally speaking, the public street and sidewalk environment forms the immediate physical context for historical resources. In some instances, it could contain historic elements that strongly evoke its setting during its period of significance. In the majority of cases, however, the streets and sidewalks within a resource's setting have experienced some degree of change. The circulation paths, surface materials, vegetation, and small-scale features that contribute to the character of a streetscape are components of the public realm and regularly updated. The types of streetscape and street network improvement activities proposed under the Hub Plan, which include changes to street configuration, paving materials, sidewalk widths, street trees, furnishings, and lighting, represent a continuation of the streetscape and street network improvement campaigns that have been implemented within the Hub Plan area since the 19th century. As such, streetscape and street network improvements proposed by the Hub Plan would not change the setting of individual built-environment resources to the extent that the significance of those resources would be materially impaired.

Through development incentives, implementation of the Hub Plan would have the potential to result in demolition or alteration in an adverse manner of historical resources. As a result, subsequent development projects under the Hub Plan could lead to material impairment of the significance of those resources and would therefore result in a *significant* impact on individual built-environment resources.

Mitigation Measures

M-CUL-1a: *Avoid or Minimize Effects on Identified Built Environment Resources.* This mitigation measure is required in recognition of Objective 3.2 of the Market and Octavia Area Plan, to which the Hub Plan is an amendment. Objective 3.2 states that the Market and Octavia Area Plan shall “[p]romote the preservation of notable historic landmarks, individual historic buildings, and features that help to provide continuity with the past.” Policy 3.2.2 of the Market and Octavia Plan states that the plan shall “encourage rehabilitation and adaptive reuse of historic buildings and resources.” In order to meet Objective 3.2 and Policy 3.2.2, the project sponsor of a subsequent development project in the Hub Plan area that occurs on the site of a built-environment historic resource or contributor to a historic district shall seek feasible means for avoiding significant adverse effects on historic architectural resources, with judgment of the significance of the impact to be based on the Secretary of the Interior's Standards for Rehabilitation. If a project that conforms to the Secretary of the Interior's Standards for Rehabilitation is not feasible, the project sponsor shall a.) demonstrate that infeasibility to the San Francisco Planning Department's preservation staff, and

b.) consult with the San Francisco Planning Department's preservation and urban design staff to determine if effects on built-environment resources should be minimized by retaining a portion of the existing building and incorporating it into the project, with the understanding that such minimization would still result in a significant adverse impact on historical resources. If retention of a portion of the existing building is not feasible, the project sponsor shall demonstrate that infeasibility to the San Francisco Planning Department's preservation staff. California Environmental Quality Act Guidelines section 15364 defines "feasible" as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." For the purposes of this mitigation measure, economic factors will not be considered. The applicability of each remaining factor would vary from project to project and be determined by staff members on a case-by-case basis.

Should a project that conforms to the secretary's standards be determined to be infeasible, the following additional measures shall be applicable, based on the specific circumstances of the project in question.

M-CUL-1b: Prepare and Submit Historical Documentation of Built Environment Resources.

Where avoidance is not feasible, as described in Mitigation Measure M-CUL-1a, the project sponsor of a subsequent development project in the Hub Plan area shall undertake historical documentation. The project sponsor shall retain a professional who meets the Secretary of the Interior's Qualification Standards for Architectural Historian or Historian (36 Code of Federal Regulations part 61) and a photographer with demonstrated experience in Historic American Buildings Survey photography to prepare written and photographic documentation for the affected built-environment resources. The Historic American Buildings Survey documentation package for each affected built-environment resource shall be reviewed and approved by the San Francisco Planning Department's preservation staff prior to the issuance of any demolition, site, or construction permit for the project.

The documentation shall consist of the following:

- *Historic American Buildings Survey-level Photographs:* Historic American Buildings Survey standard large-format photography shall be used to document the built-environment resources and surrounding context. The scope of the photographs shall be reviewed and approved by the San Francisco Planning Department's preservation staff for concurrence, and all photography shall be conducted according to the current National Park Service Historic American Buildings Survey standards. The photograph set shall include distant/elevated views to capture the extent and context of the resource.

- All views shall be referenced on a key map of the resource, including a photograph number with an arrow to indicate the direction of the view.
- The draft photograph contact sheets and key map shall be provided to the San Francisco Planning Department's preservation staff for review to determine the final number and views for inclusion in the final dataset.
- Historic photographs identified in previous studies shall also be collected, scanned as high-resolution digital files, and reproduced in the dataset.
- *Written Historic American Buildings Survey Narrative Report:* A written historical narrative, using the outline format, shall be prepared in accordance with the Historic American Buildings Survey Historical Report Guidelines.
- *Measured Drawings:* A set of measured drawings shall be prepared to document the overall design and character-defining features of the affected built-environment resource. Original design drawings of the resource, if available, shall be digitized and incorporated into the measured drawings set. The San Francisco Planning Department's preservation staff shall assist the consultant in determining the appropriate level of measured drawings.
- *Print-on-Demand Booklet:* Following preparation of the Historic American Buildings Survey photography, narrative report, and drawings, a print-on-demand softcover book shall be produced for the resource that compiles the documentation and historical photographs. The print-on-demand book shall be made available to the public for distribution.

Format of Final Dataset:

- The project sponsor shall contact the History Room of the San Francisco Public Library, San Francisco Planning Department, Northwest Information Center, and California Historical Society to inquire as to whether the research repositories would like to receive a hard or digital copy of the final dataset. Labeled hard copies and/or digital copies of the final book, containing the photograph sets, narrative report, and measured drawings, shall be provided to these repositories in their preferred format.
- The project sponsor shall prepare documentation for review and approval by the San Francisco Planning Department's preservation staff, along with the final Historic American Buildings Survey dataset, that outlines the outreach, response, and actions taken with regard to the repositories listed above. The documentation shall also include any research conducted to identify additional interested groups and the results of that outreach. The project sponsor shall make digital copies of the final dataset, which shall be made available to additional interested organizations, if requested.

This mitigation measure would create a collection of preservation materials that would be available to the public and inform future research. In this way, documentation of the affected properties and presentation of the findings to the community could reduce the impact on historical resources. Although implementation of this mitigation measure may reduce impacts on historical resources, it would not reduce the impact to a less-than-significant level because only avoidance of substantial adverse changes would reduce impacts to less-than-significant levels.

M-CUL-1c: Develop and Implement an Interpretive Program for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District. For projects that would demolish or materially alter a historical resource or contributor to a historic district, the project sponsor shall work with the San Francisco Planning Department's preservation staff or other qualified professionals to institute an interpretive program onsite that references the property's history and the contribution of the historical resource to the broader neighborhood or historic district. The interpretive program would include the creation of historical exhibits, incorporating a permanent display featuring historic photos of the affected resource and a description of its historical significance, in a publicly accessible location on the project site. This may also include a website. The contents of the interpretative program shall be determined by the San Francisco Planning Department's preservation staff. Development of the interpretive displays shall be overseen by a qualified professional who meets the standards for history, architectural history, or architecture (as appropriate) set forth by the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations part 61). An outline of the format and the location and content of the interpretive displays shall be reviewed and approved by the San Francisco Planning Department's preservation staff prior to issuance of a demolition permit or site permit. The format, location, content, specifications, and maintenance of the interpretive displays must be finalized prior to issuance of any building permits for the project.

Although implementation of this mitigation measure may reduce impacts on historical resources, it is not expected to reduce impacts to less-than-significant levels because only avoidance of substantial adverse changes to historical resources would reduce impacts to less-than-significant levels.

M-CUL-1d: Video Recordation for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District. For projects that would demolish or materially alter a historical resource or contributor to a historic district, the project sponsor shall work with the San Francisco Planning Department's preservation staff or other qualified professionals to undertake video documentation of the affected historical resource and its setting. The documentation shall be conducted by a

professional videographer, preferably one with experience recording architectural resources, prior to the commencement of any demolition or project activities at the project site. The documentation shall be narrated by a qualified professional who meets the standards for history, architectural history, or architecture (as appropriate), as set forth by the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations part 61). The documentation shall include as much information as possible, using visuals in combination with narration, about the materials, construction methods, current condition, historic use, and significance and historic context of the historical resource.

Digital copies of the video documentation shall be submitted to the San Francisco Planning Department; archival copies of the video documentation shall be submitted to repositories including, but not limited to, the San Francisco Public Library, Northwest Information Center, and California Historical Society. The video documentation shall be reviewed and approved by the San Francisco Planning Department's preservation staff prior to issuance of a demolition, site, or building permit for the project.

Implementation of this mitigation measure would assist in reducing project-specific impacts but would not reduce impacts to a less-than-significant level because only avoidance of substantial adverse changes to historical resources would reduce impacts to less-than-significant levels.

M-CUL-1e: Architectural Salvage for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District. For projects that would demolish or materially alter a historical resource or contributor to a historic district, the project sponsor shall seek feasible means for salvaging the building's character-defining architectural features and incorporating them into either the design of the new project proposed at the site or the interpretive program that would be developed under M-CUL-1c. The project sponsor shall work closely with the San Francisco Planning Department preservation and urban design staff to determine which elements should be salvaged. In the event that reuse of salvaged elements in either the design of a new building or in an interpretive program proves infeasible or otherwise undesirable, as determined by the San Francisco Planning Department preservation staff, the project sponsor may, at the direction of the San Francisco Planning Department preservation staff, be required to attempt to donate the elements to an appropriate historical or arts organization. A detailed salvage plan shall be reviewed and approved by the San Francisco Planning Department's preservation staff prior to the issuance of any demolition, site, or construction permit for the project.

Implementation of this mitigation measure would assist in reducing project-specific impacts but would not reduce impacts to a less-than-significant level because only avoidance of substantial adverse changes to historical resources would reduce impacts to less-than-significant levels.

Significance after Mitigation

Mitigation Measure M-CUL-1a would be required to establish a review process by which subsequent development projects that affect previously identified historical resources would be assessed for their level of impact on the historical resources. If the avoidance measures are determined not to be feasible, subsequent measures (i.e., Mitigation Measures M-CUL-1b through M-CUL-1e) would be required in order to document and interpret for the public the significance of the affected resource and reuse the character-defining historic fabric of the resource in new construction or historic interpretation to the extent deemed feasible. The mitigation would partially compensate for impacts associated with development under the Hub Plan through comprehensive documentation and memorialization of the resource. However, these measures would not be enough to avoid, rectify, reduce, or compensate for the loss of built-environment resources. Because demolition of built-environment resources or alteration in an adverse manner could still occur, the impact would remain *significant and unavoidable* after the application of mitigation.

IMPACTS ON HISTORIC DISTRICTS

New development and changes to existing buildings may occur in the Hub Plan area as a result of changes in zoning and height and bulk districts, development incentives, and streetscape and street network improvements. Such changes may occur within or adjacent to historic districts within the Hub Plan area and have the potential to disrupt the concentration, linkage, or continuity that characterizes historic districts and allows them to convey their significance. Adjacent new construction also has the potential to degrade a district's historic setting. A historic district may remain eligible for historic register listing even if one or even several of its contributors are demolished or substantially altered or if new construction occurs within the district but does not replace a contributing property. The assessment of potential impacts must take into consideration the specific characteristics of the district that qualify it for historic register listing in order to determine how changes to one or several district contributors, or a non-contributing property within the boundaries of the district, may have an impact on the significance of the district as a whole.

Several sites within the CEQA study area may experience significant height and bulk changes within or adjacent to historic districts. Therefore, there is greater potential for substantial adverse changes to the physical characteristics or historic settings of these districts.

Additionally, the Hub Plan's proposed streetscape and street network improvements would occur adjacent to, or extend into, identified historic districts in the CEQA study area. The Hub Plan area contains several historic districts that are significant as concentrations of aesthetically

and/or thematically linked buildings. Similar to the analysis presented above for individual built historical resources, the proposed streetscape and street network improvements represent a limited amount of work, thereby maintaining the functional characteristics of the public realm as a shared and active urban space within these districts. Changes to the precise design and configuration of vehicular traffic lanes, sidewalks, street trees, and infrastructural features, such as streetlights, typically would not impede a historic district's ability to convey the sense of concentration, linkage, or continuity that characterizes it as a collection of associated buildings because these changes would be similar to past changes in the public realm and would continue the ongoing process of streetscape and street network improvement that has occurred since the resources' identified periods of significance. The Hub Plan area also contains historic districts whose character-defining features are primarily located within the public right-of-way. For each of these districts, physical changes to the streetscape implemented as part of the Hub Plan have a greater potential of materially impairing the significance of the district.

The following analysis describes the Hub Plan's potential impacts on historic districts. The impact discussion for each district begins with an analysis of height and bulk district changes, and then subsequently discusses streetscape and street network improvements.

Civic Center Landmark District

The Hub Plan would not physically alter any significant characteristics of the Civic Center Landmark District. Height and bulk changes occurring under the Hub Plan would, at nearest, allow development at the intersection of Market Street and Van Ness Avenue that is anticipated to exceed the height of buildings currently located at this intersection. The resulting buildings constructed on the 30 Van Ness Avenue, 1500–1540 Market Street, 1 South Van Ness Avenue, and 10 South Van Ness Avenue sites may rise to heights of between 450 feet and 650 feet, whereas the buildings currently located within these four sites are between 40 and 157 feet tall. (The potential impacts of the 30 Van Ness Avenue Project are discussed separately below under Impact CUL-2.) The considerably taller development that would be allowed at the Market Street-Van Ness Avenue intersection under the Hub Plan would be located between one and two blocks south of the southern boundary of the Civic Center Landmark District, which is centered around the approximately 300-foot-tall City Hall, the district's primary visual anchor. Although the Hub Plan may introduce new development in the general vicinity of the Civic Center Landmark District that is taller than City Hall, it would be separated from City Hall by at least one block, which would be a sufficient distance so as not to directly compete with the primacy of City Hall within the context of the surrounding Beaux-Arts Civic Center Landmark District. Subsequent development occurring under the Hub Plan would not disrupt any significant spatial or visual relationships within the Civic Center Landmark District that convey significance and would not block the viewsheds of City Hall that are intrinsically linked to the district's historic significance, including along the Fulton Street axis.

No streetscape or street network improvements are proposed within or adjacent to the Civic Center Landmark District under the Hub Plan. Therefore, the impact of the Hub Plan on the Civic Center Landmark district would be *less than significant*.

Hayes Valley Residential Historic District

The Hayes Valley Residential Historic District encompasses a large area of the Hayes Valley neighborhood and overlaps the CEQA study area at the district's eastern end, where Lily Street extends into the district boundary. The Hayes Valley Residential Historic District lies entirely outside of the Hub Plan area, and no parcel within the district is on a site that would experience a change in the height and bulk district or allowable land use.

Streetscape and street network improvements occurring at Lily Street would extend one half-block into the eastern portion of the Hayes Valley Residential Historic District. These activities are analyzed as part of the 98 Franklin Street Project, below.

Therefore, the impact of the Hub Plan on the Hayes Valley Residential Historic District would be *less than significant*.

Jessie-McCoppin-Stevenson Streets Reconstruction Historic District

The Jessie-McCoppin-Stevenson Streets Reconstruction Historic District contains small-scale, two- or three-story residential buildings that date to the immediate post-1906 earthquake period. The district comprises 15 contributing buildings; however none of the district contributors are on sites that would experience a change in height and bulk zoning. However, the district lies adjacent to two such sites, 33 Gough Street and 170 Otis Street. If these two sites were to be redeveloped to the proposed height limits (250 feet at 33 Gough Street and 150 feet at 170 Otis Street), the setting of the district would include development that would be of a much larger scale than the modest two- and three-story residences that contribute to the district; however, the district's essential internal characteristics, as a concentration of Edwardian-era post-earthquake residential buildings, would not be altered. However, the entirety of the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District would experience a change in allowable land use as a result of the Hub Plan. This change may result in reuse or redevelopment of sites throughout the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, with the potential to demolish or substantially alter contributors to the district.

Streetscape and street network improvements under the Hub Plan include alley work at Stevenson and Jessie streets, which would extend into the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District. Activities proposed at Jessie and Stevenson streets would generally be limited to the provision of new trees, bollards, pedestrian lighting, one bulb-out, seating, and other street furnishings within and adjacent to the district. The existing paving materials, street lighting, sidewalk configuration, and vegetation do not date to the district's period of significance and do not contribute directly to its historic setting. As a result, the alley improvements proposed under the Hub Plan would represent a limited change to the

characteristics and setting of the district and would not remove or obscure any physical features that express the district's identity as a coherent, low-rise residential neighborhood that developed following the 1906 earthquake. This change would furthermore represent a continuation of streetscape improvements that have taken place within the district since its period of significance.

Because demolition or substantial alteration of all district contributors may occur as a result of the Hub Plan, the Hub Plan has the potential to materially impair the significance of the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District. Therefore, the impact of the Hub Plan on the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District would be *significant*.

Market Street Cultural Landscape District

Sites adjacent to the Van Ness Avenue/Market Street intersection, an area where height limits would increase under the Hub Plan, are not within the boundary of the Market Street Cultural Landscape District. Subsequent development occurring under the Hub Plan would not alter any of the district's contributing cultural landscape features located within the district boundaries (including circulation paths, small-scale features, and overall spatial organization of the Market Street corridor). However, the sites where allowable land uses and heights would change contribute to the character of the district insofar as the buildings that line Market Street adjacent to the Market Street Cultural Landscape District form streetwalls that frame the Market Street corridor and assist in contextualizing Market Street's significance as San Francisco's main circulation artery and facilitator of civic engagement, including its role as a significant venue for civic engagement in San Francisco. Adjacent buildings spatially define Market Street as a significant transportation and procession space in downtown San Francisco. Development that could occur with implementation of the Hub Plan specifically would include sites at the prominent intersection of Market Street and Van Ness Avenue (e.g., 30 Van Ness Avenue, 1 South Van Ness Avenue, 10 South Van Ness Avenue, and 1500–1540 Market Street). (The potential impacts of the 30 Van Ness Avenue Project are discussed separately below under Impact CUL-2.) Although anticipated to be taller than the buildings currently located at this intersection, subsequent development that would occur within these sites would reinforce the overall pattern of buildings that frame Market Street and contextualize its importance as a circulation route and space for public engagement. No other character-defining features of the Market Street Cultural Landscape District would be altered through implementation of the Hub Plan.

Regarding streetscape and street network improvements under the Hub Plan, the boundaries of the Market Street Cultural Landscape District are limited to the Market Street roadway and several adjacent plazas for people walking and landscape features within the public right-of-way. The Hub Plan does not propose changes to the broader Market Street streetscape or street network.

As a result, the Hub Plan would not lead to material impairment of the significance of the Market Street Cultural Landscape District. The impact of the Hub Plan on the Market Street Cultural Landscape District would be *less than significant*.

Market Street Masonry Landmark District

Similar to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District, the Market Street Masonry Landmark District is relatively small, with eight contributing buildings, and entirely contained within the Hub Plan area. None of the contributors to the district are located on a site where height and bulk zoning would change. Although most of the remaining contributors to the Market Street Masonry Landmark District are on sites where the allowable land use would change, it is not anticipated that any would be demolished as a result of the Hub Plan. Because the Market Street Masonry Landmark District is locally designated under article 10, the review process for the certificate of appropriateness would require any district contributor undergoing change in the future to be treated in accordance with the Secretary of the Interior's Standards for Rehabilitation. Compliance with these standards would ensure the resource would retain its eligibility. In addition, three of the contributors to the district—the Edward McRoskey Mattress Factory Company at 65 Gough Street, the Miramar Apartments at 20 Franklin Street/1580–1598 Market Street, and Hotel Fallon at 1693–1695 Market Street are adjacent to sites where the height and bulk district would change. The site adjacent to the Miramar Apartments is 98 Franklin Street; the 98 Franklin Street Project is analyzed at the project level in Impact CUL-2. Neither of the two remaining adjacent sites would remove the district contributors' architectural style linkages or undermine the Market Street Masonry Landmark District's broader commercial district setting, which conveys its historical and architectural significance. For these reasons, no contributors to the Market Street Masonry Landmark District would be demolished or substantially altered as a result of the Hub Plan.

Regarding streetscape and street network improvements under the Hub Plan, alley work is proposed at Stevenson and Rose streets, which occur adjacent to the rear of three contributors to the Market Street Masonry Landmark District. By nature, contributing resources of discontinuous districts are geographically dispersed, and the spaces between district contributors, including non-contributing properties as well as the public realm, contribute negligibly to the significant linkages that characterize these districts. Alley work would introduce new raised crosswalks and intersections, paving materials, trees, bollards, and lighting that would not alter the architectural characteristics that link the contributors of the Market Street Masonry Landmark District. Therefore, the Hub Plan would not materially impair the significance of the Market Street Masonry Landmark District. The impact of the Hub Plan on the Market Street Masonry Landmark District would be *less than significant*.

San Francisco Auxiliary Water Supply System

The AWSS extends into the Hub Plan area and is composed primarily of infrastructural features in the public realm and below grade. It does not occupy any sites that would experience land use changes as a result of the Hub Plan. Land use changes under the Hub Plan would not demolish or substantially alter any characteristics of the AWSS.

Contributing features of this district, however, exist within the Hub Plan area's streetscape and street network. The AWSS high-pressure fire hydrants, the most ubiquitous features belonging to the system, are found within the Hub Plan area along Market Street, Van Ness Avenue, and Mission Street, and are connected to the below-grade AWSS distribution main. In addition, a sub-surface AWSS cistern is located within the Duboce Avenue right-of-way, near its intersection with Mission Street along the southern boundary of the Hub Plan area. The AWSS cistern in Duboce Avenue is located where new bikeways are proposed under the Hub Plan. It does not appear that the AWSS cistern at this location would be destroyed or altered in an adverse manner as a result of streetscape and street network improvement activities.

AWSS hydrants are found in several locations where streetscape and street network improvements are proposed as part of the Hub Plan, namely at the intersection of South Van Ness Avenue and Mission Street and at the intersection of Lafayette Street and Mission Street. It is not currently known how the AWSS hydrants would be treated at these locations with implementation of the streetscape and street network improvements proposed in the Hub Plan. It remains a possibility that the hydrants would be moved to new locations, which would also require some changes in the locations of branch pipes within the distribution main. Furthermore, San Francisco Public Works (public works) has developed contract specifications related to the protection of existing water and AWSS facilities, which require preparation of a work plan and drawings detailing existing conditions, protection, and proposed work, as well as close conformance to contract specifications, to protect and provide uninterrupted service from these facilities. At the current stage of project development for streetscape and street network improvements under the Hub Plan, however, to what extent the project would require the use of public works AWSS contract specifications remains unknown. Although the sub-surface pipes are character-defining features of the AWSS, their most important contribution to the significance of the resource is their continuing functionality supplying high-pressure water to aboveground features.

In summary, because relocation of AWSS hydrants has the potential to materially impair the significance of the AWSS, the impact of the Hub Plan on the AWSS would be *significant*.

SoMa LGBTQ Historic District

The SoMa LGBTQ Historic District includes one contributing property, as identified in the 2017 280–282 *Seventh Street Historic Resource Evaluation*, on a site, 50 Otis Street, that could experience changes under the Hub Plan to allowable land uses as well as the height and bulk district. This

contributing property, the Women's Press Project, is a two-story building at 95 Brady Street.⁷⁵ Under the Hub Plan, the height limit on the site that includes this building would increase from 50 to 65 feet. This height increase could result in either a change to the existing building, or the complete demolition of the building. One other contributor to the SoMa LGBTQ Historic District, 1551–1559 Mission Street, is also in the Hub Plan area but is not located on or adjacent to a site proposed for height and bulk increase. However, even with demolition or substantial alteration of the Women's Press Project and 1551–1559 Mission Street as a result of the Hub Plan, the SoMa LGBTQ Historic District would not experience material impairment with respect to its significance.

Based on the current documentation of the district's significance and character-defining features, the district would still contain more than 100 contributors, even if two contributors were demolished or altered substantially. Furthermore, both contributors to the SoMa LGBTQ Historic District within the Hub Plan area are near the western extent of this discontinuous district such that the potential loss of the Women's Press Project and 1551–1559 Mission Street would not hinder the SoMa LGBTQ Historic District's ability to convey its character as a dispersed collection of cultural and commercial establishments that formed an important enclave for LGBTQ communities during the second half of the 20th century.

Changes in the streetscape and street network under the Hub Plan would occur on Otis and Lafayette streets, which run adjacent to two contributing properties belonging to the SoMa LGBTQ Historic District. Similar to the Market Street Masonry Landmark District, the SoMa LGBTQ Historic District is discontinuous, and the public realm does not have primary importance in conveying the significant thematic linkages that characterize the district, which are the contributors' historic role as social and commercial establishments serving LGBTQ communities.

As a result, the Hub Plan would not lead to a substantial adverse change in the significance of the SoMa LGBTQ Historic District. The impact of the Hub Plan on the SoMa LGBTQ Historic District would be *less than significant*.

Western SoMa Light Industrial and Residential Historic District

The Western SoMa Light Industrial and Residential Historic District is an expansive historic district, covering a wide swath of the SoMa neighborhood. Several of the district's contributors along its western edge are within the boundary of the Hub Plan area, but none is on a site that would experience a change in the height and bulk district or allowable land use. Furthermore, even if new development were to occur on the sites containing district contributors within the

⁷⁵ The documentation of the SoMa LGBTQ Historic District refers to this building as 95 Brady Street, but the Hub Plan refers to the site as 50 Otis Street. The differing addresses refer to the same property with Assessor's Parcel Number 3505/021.

Hub Plan area, the significance of the district would not be materially impaired because of the large size of the district, crossing much of the western portion of the SoMa neighborhood, and its composition that includes nearly 700 contributing resources. The remaining resources would continue to convey the character of a coherent mixed-use neighborhood dating to the early 20th century.

Streetscape and street network improvements under the Hub Plan include alley work proposed at Lafayette and Minna streets, which would extend into the northwestern corner of the Western SoMa Light Industrial and Residential Historic District. Activities would generally be limited to the provision of new trees, bollards, raised intersections, paving materials, and lighting. Furthermore, the existing paving materials, street lighting, and vegetation at Minna and Lafayette streets do not date to the district's period of significance and do not contribute to its historic setting. Alley improvements would occur at only two small streets at the edge of this expansive district, representing a change to the public realm within a limited portion of the district. The alley improvements proposed under the Hub Plan would not remove or obscure any physical features that express the district's identity as a sprawling mixed-use neighborhood primarily containing low-rise industrial and residential buildings. This change would furthermore represent a continuation of streetscape improvements that have taken place within the district since its period of significance.

The impact of the Hub Plan on the Western SoMa Light Industrial and Residential Historic District would be *less than significant*.

Elgin Park-Pearl Street Reconstruction Historic District

In addition to the historic districts described above, which fully or partially overlap the Hub Plan area, the Elgin Park-Pearl Street Reconstruction Historic District is adjacent to the southwestern corner of the Hub Plan area. The Elgin Park-Pearl Street Reconstruction Historic District is physically separated from the Hub Plan area by the on-ramp to the Central Freeway that extends south of Octavia Boulevard. No new height and bulk districts or streetscape or street network improvements are proposed within the Elgin Park-Pearl Street Reconstruction Historic District. The nearest height limit increase proposed under the Hub Plan is at 170 Otis Street, which is approximately 400 feet east of the easternmost extent of the historic district. Under the Hub Plan, the Elgin Park-Pearl Street Reconstruction Historic District would retain the essential physical characteristics that convey its historic character as a dense concentration of early 20th-century residential buildings. Potential new development occurring east of the district under the Hub Plan would cause only a negligible change in the district's broader urban setting. The impact of the Hub Plan on the Elgin Park-Pearl Street Reconstruction Historic District would be *less than significant*.

Summary of Impacts

Subsequent development projects occurring under the Hub Plan have the potential to demolish or alter in an adverse manner contributors to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District. Subsequent development projects may materially impair the district's significance and therefore result in a *significant* impact on this historic district. In addition, because of the potential for streetscape and street network improvements under the Hub Plan to relocate contributing features of the AWSS, streetscape and street network improvements could cause a substantial adverse change in the significance of built-environment resources, resulting in a *significant* impact on the AWSS. The impact of subsequent development projects and streetscape and street network improvements on all other historic districts within and adjacent to the Hub Plan area would be *less than significant*.

Mitigation Measures

The following mitigation measures would also be required for any project proposed on the site of a contributor to the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District: M-CUL-1a, Avoid or Minimize Effects on Identified Built Environment Resources; M-CUL-1b, Prepare and Submit Historical Documentation of Built Environment Resources; M-CUL-1c, Develop and Implement an Interpretive Program for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; M-CUL-1d, Video Recordation for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; and M-CUL-1e, Architectural Salvage for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District.

One additional mitigation measure would be required to minimize the Hub Plan's impact on the Auxiliary Water Supply System:

M-CUL-1f: *New Locations for Contributing Auxiliary Water Supply System Elements to Preserve Historic District Character.* Where a streetscape or street network improvement proposed under the Hub Plan would require moving an Auxiliary Water Supply System hydrant, the San Francisco Planning Department shall conduct additional study to determine if it contributes to the historic significance of the Auxiliary Water Supply System. If the element is determined to be a contributing feature of the Auxiliary Water Supply System, the project sponsor shall work with the San Francisco Planning Department's preservation staff to determine a location where the contributing Auxiliary Water Supply System hydrant could be reinstalled to preserve the historic relationships and functionality that are character-defining features of the Auxiliary Water Supply System. Generally, hydrants shall be reinstalled near the corner or the intersection from where they were removed. Any hydrant found not to contribute to the significance of the Auxiliary Water Supply System could be removed or relocated without diminishing the historic integrity of the district. Furthermore, the project would

require the San Francisco Planning Department to coordinate with San Francisco Public Works and adopt San Francisco Public Works Auxiliary Water Supply System contract specifications related to the protection of existing water and Auxiliary Water Supply System facilities during implementation of streetscape and street network improvements under the Hub Plan.

Significance after Mitigation

Mitigation Measure M-CUL-1a would be required to establish a review process by which subsequent development projects affecting the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District would be assessed for their level of impact on the district. If the avoidance measures are determined not to be feasible, subsequent measures (i.e., Mitigation Measures M-CUL-1b through M-CUL-1e) would be required in order to document and interpret for the public the significance of the affected historic district contributor and reuse the character-defining historic fabric of the resource in new construction or historic interpretation to the extent deemed feasible. The mitigation would partially compensate for impacts associated with development under the Hub Plan through comprehensive documentation and memorialization of the resource. However, these measures would not be enough to avoid, rectify, reduce, or compensate for the loss of built-environment resources. Because demolition of built-environment resources or alteration in an adverse manner could still occur, the impact would remain *significant and unavoidable* after the application of mitigation.

To reduce the potential significant impact on the AWSS, Mitigation Measure M-CUL-1f, as described above, would be required to protect AWSS features during implementation of streetscape and street network improvements and ensure that those AWSS features located where streetscape and street network improvements would occur would not be altered in an adverse manner. This measure would ensure that the streetscape and street network improvements proposed under the Hub Plan would not diminish the integrity of the AWSS. Therefore, following application of Mitigation Measure M-CUL-1f, the impact would be reduced to a *less-than-significant* level.

Impact CUL-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a substantial adverse change to individual built-environment resources and/or historic districts, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code. (Less than Significant)

30 VAN NESS AVENUE PROJECT

The individual development project at 30 Van Ness Avenue is analyzed below at the project level. This project involves retention of portions of the existing five-story building located at the northeastern corner of the Market Street/Van Ness Avenue intersection and construction of a 45-story building that contains office, residential, and retail uses. The existing building at

30 Van Ness Avenue was constructed in 1908 but was substantially remodeled in 1960; it was evaluated as ineligible for listing in the national and California registers, and local landmark registry in 2010 as part of the Market and Octavia Augmentation Survey. Furthermore, the building at 30 Van Ness Avenue is not located within a historic district. The property is therefore not a historical resource for the purposes of CEQA. As such, partial retention of the existing building and construction of a new mixed-use tower on the site would not constitute material impairment of the significance of a historical resource located within the project site.

The proposed building at 30 Van Ness Avenue would add over 30 stories to the building that currently occupies the site. Therefore, the 30 Van Ness Avenue Project would introduce a highly visible tower on a prominent corner in central San Francisco that is within the immediate surroundings of known historical resources (inclusive of individual resources and historic districts), as represented in **Figure 3.A-1**, p. 3.A-20:

- The six-story former Masonic Temple at 25 Van Ness Avenue, which is locally designated under article 11 as a Category I significant building and has been formally found eligible for listing in the national register, is located directly across Van Ness Avenue, west of the project site.
- The building at 50 Fell Street, a historical resource that has been locally designated as a Category I significant building under article 11, is across from the northern boundary of the project site. The two- to four-story institutional building, designed in the Spanish Eclectic style, is situated between a 29-story residential tower at 100 Van Ness Avenue and 20-story residential building at 1 Polk Street.
- The building at 10 South Van Ness Avenue, a two-story building that has been determined eligible for listing in the California register, is southwest of the site for the 30 Van Ness Avenue Project, across the intersection of Market Street and Van Ness Avenue.
- The High School of Commerce at 135 Van Ness Avenue, a three-story building locally designated as Landmark No. 140 under article 10, is northwest of the site for the 30 Van Ness Avenue Project, across the intersection of Fell Street and Van Ness Avenue.
- The Civic Center Landmark District extends south to encompass the High School of Commerce and is located across the intersection of Fell Street and Van Ness Avenue from the 30 Van Ness Avenue project site; City Hall forms the core of the district and is located two blocks north of the 30 Van Ness Avenue project site.
- The Market Street Cultural Landscape District occupies the Market Street roadway immediately south of the 30 Van Ness Avenue project site.

The Hub Plan area is a densely developed urban neighborhood that has undergone a continuum of commercial, industrial, and residential development between the second half of the 19th century and the present day. Generally speaking, each historical resource in the Hub Plan area has experienced some degree of change in its setting since the time it gained

significance. The building at 135 Van Ness Avenue is locally designed under article 10 on account of its architectural and historical importance (equivalent to national register/California register Criteria A/1 and C/3); the former Masonic Temple, and the building at 50 Fell Street are locally designated under article 11 because of their architectural significance (national register/California register Criteria C/3). As such, these buildings would not experience material impairment to their significance as a result of the podium extension and new tower at 30 Van Ness Avenue in their immediate setting. Although the 30 Van Ness Avenue Project would introduce new development in the vicinity that is of a larger scale than adjacent historical resources, the physical characteristics (i.e., forms, materials, decorative/stylistic elements) that allow the historical resources to embody the distinctive characteristics of a type, period, region, or method of construction or express high artistic value would not be removed.

The significance of 10 South Van Ness Avenue is not due to the building's architecture but rather its role as the location of the Fillmore West music venue during the late 1960s and early 1970s. The building's significance is related to its immediate surroundings insofar as they express a varied commercial area adjacent to the intersection of two of San Francisco's most heavily traveled transportation corridors. These aspects of the resource's setting would not be adversely altered as a result of the project at 30 Van Ness Avenue.

The 30 Van Ness Avenue project site is situated on the opposite side of the Van Ness Avenue-Fell Street intersection from the boundary of the Civic Center Landmark District and is located two blocks south of City Hall. As introduced under "Impacts on Historic Districts" above, the new tower constructed at 30 Van Ness Avenue would rise taller than City Hall but would be a sufficient distance away from the center of the Civic Center Landmark District so as not to compete with the visual primacy of City Hall within its district, and would not block any significant views of City Hall from surrounding neighborhoods.

The 30 Van Ness Avenue project site is adjacent to the Market Street Cultural Landscape District and contributes to the setting of that district because it, like all buildings adjacent to Market Street between The Embarcadero and Octavia Boulevard, is part of the streetwall that lines Market Street and reinforces the district's spatial organization. As described under "Impacts on Historic Districts" above, partial removal of the building at 30 Van Ness Avenue and construction of a new tower on the site would continue to reinforce the streetwalls alongside Market Street that frame Market Street and contextualize its importance as a circulation route and space for public engagement. Impacts of the 30 Van Ness Avenue Project on individual built-environment resources and/or historic districts would be *less than significant*.

98 FRANKLIN STREET PROJECT

The individual development project at 98 Franklin Street would involve construction of a 31-story residential tower over a five-story podium on the current location of a 100-space paved surface vehicular parking lot. No historical resource would be demolished or relocated to accommodate construction of the proposed tower. However, the 98 Franklin Street project site

would be adjacent to the north and east sides of the Miramar Apartments at 20 Franklin Street/1580–1598 Market Street, and on the south side of Oak Street, immediately opposite the Young Men’s Institute at 50 Oak Street. Two additional historical resources are adjacent to the 98 Franklin Street project site: 41 Franklin Street is located on the west side of Franklin Street opposite the 98 Franklin Street project site, and 150 Oak Street is located northwest across the Franklin and Oak streets.

The Miramar Apartments, Young Men’s Institute, and 150 Oak Street qualify for inclusion in historical registers because they are architecturally significant. Construction of a 36-story building on the current site of a surface vehicular parking lot within their immediate surroundings would introduce a new adjacent building that is substantially taller than the historical resources, but would not materially impair the significance of any of these resources because the new development would not alter the resources’ physical characteristics that allow them to embody the distinctive characteristics of a type, period, region, or method of construction or express high artistic value. Furthermore, 41 Franklin Street, which is located across Franklin Street from the 98 Franklin Street project site, qualifies for California register listing due to its association with post-earthquake reconstruction. Much of the building’s historic setting dating to the early 20th century has subsequently been redeveloped, and the construction of a new 36-story building within a surface parking lot facing the east façade of the resource would not alter any of the physical characteristics (including its three-story scale, cladding materials, and design of two residential floors over a commercial storefront) that allow the building at 41 Franklin Street to convey the post-earthquake reconstruction period.

Additionally, the 98 Franklin Street project site would stand between two buildings that contribute to the Market Street Masonry Landmark District: the Miramar Apartments and the Whiteside Apartments at 150 Franklin Street, located two blocks to the north. The Market Street Masonry Landmark District is a discontinuous district. The linkage and continuity that characterize the Market Street Masonry Landmark District are expressed through similarity in materials and the architectural styles of its contributors, irrespective of the properties that lie between. The 98 Franklin Street Project would introduce a new tower between these two district contributors that would be over 30 stories taller than either building and would thus eliminate the current visual relationship between the two contributors. However, the proposed 98 Franklin Street tower would not remove the architectural style linkages between the two resources or undermine the Market Street Masonry Landmark District’s broader commercial district setting, which conveys its historical and architectural significance.

The 98 Franklin Street Project also involves streetscape and street network improvements at Lily Street, which would extend one half-block into the eastern portion of the Hayes Valley Residential Historic District. Activities would generally be limited to the provision of new trees, bollards, lighting, raised crosswalks, paving materials, and other place-making and traffic-calming elements. The existing paving materials, street lighting, sidewalk configuration, and

vegetation do not date to the district's period of significance and do not contribute directly to its historic setting. Furthermore, streetscape improvements proposed as part of the 98 Franklin Street Project would occur within one narrow alley at the edge of this district, representing a change to the public realm within a limited portion of the district. Such streetscape work would not remove or obscure any physical features that express the district's identity as a neighborhood containing a coherent collection of late 19th- and early 20th-century residential buildings. This change would furthermore represent a continuation of streetscape improvements that have taken place within the district since its period of significance.

Impacts of the 98 Franklin Street Project on individual built-environment resources and/or historic districts would be *less than significant*.

Summary of Impacts

The proposed individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not demolish, destroy, relocate, or alter in an adverse manner any historical resource or its immediate surroundings to the extent that it could no longer convey its historical significance. The two individual development projects would therefore have a *less-than-significant* impact on historic built-environment resources.

Impact CUL-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of an individual built-environment resource and/or historic district, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code, from ground-borne vibration caused by temporary construction activities. (Less than Significant with Mitigation)

Construction activities occurring as a result of the Hub Plan, individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and streetscape improvements are analyzed for their potential to materially impair the significance of historical resources under Impact NOI-3 in Section 3.C, Noise.

Impact CUL-4. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could cause a substantial adverse change in the significance of an archaeological resource, as defined in section 15064.5. (Less than Significant with Mitigation)

Based on the results of nearby archaeological investigations, archival research, and a historical archaeological sensitivity analysis performed as part of the ARDTP for the Hub Plan and individual development projects, discoveries of significant archaeological resources are possible in portions of the Hub Plan area. In addition, one multi-component, one historic-period, and two prehistoric archaeological resources have been previously recorded in the Hub Plan area. A geoarchaeological sensitivity analysis performed as part of the ARDTP for the Hub Plan and

individual development projects identified deposits (i.e., sand dunes and marshes) that retain moderate to high prehistoric archaeological sensitivity at depths ranging from 2 to 10 feet below ground surface across the entire Hub Plan area.

THE HUB PLAN

Ground-disturbing activities would occur during subsequent development projects under the Hub Plan, including streetscape and street network improvements, across the Hub Plan area. Subsequent development projects under the Hub Plan could include excavations for foundations and basement levels; the depth of these future excavations is unknown at this time. Streetscape and street network improvements and new building developments would occur in areas, and at depths, that are sensitive for both prehistoric and historical archaeological resources (see *Archaeological Context* section). Therefore, excavations from subsequent development and from the streetscape and street network changes have the potential to physically damage or destroy as-yet undocumented archaeological resources, resulting in *significant* impacts on archaeological resources.

Mitigation Measures

M-CUL-4a: Project-Specific Preliminary Archaeological Review for Projects Involving Soil Disturbance. This archaeological mitigation measure shall apply to any subsequent development project involving any soil-disturbing or soil-improving activities, including excavation, utility installation, grading, soil remediation, or compaction/chemical grouting 2 feet or more below ground surface, for which no archaeological assessment report has been prepared.

Projects to which this mitigation measure applies shall be subject to Preliminary Archaeological Review by the San Francisco Planning Department archaeologist.

Based on the Preliminary Archaeological Review, the Environmental Review Officer shall determine if there is a potential for effects on an archaeological resource, including human remains, and, if so, what further actions are warranted to reduce the potential effect of the project on archaeological resources to a less-than-significant level. Such actions may include project redesign to avoid the potential to affect an archaeological resource, or further investigations by an archaeological consultant, such as preparation of a project-specific Archaeological Research Design and Treatment Plan or the undertaking of an archaeological monitoring or testing program based on an archaeological monitoring or testing plan. The scope of the Archaeological Research Design and Treatment Plan, archaeological testing, or archaeological monitoring plan shall be determined in consultation with the Environmental Review Officer and consistent with the standards for archaeological documentation established by the Office of Historic Preservation for the

purposes of compliance with the California Environmental Quality Act (Office of Historic Preservation, Preservation Planning Bulletin No. 5). Avoidance of effects on an archaeological resources is always the preferred option.

M-CUL-4b: *Procedures for Accidental Discovery of Archaeological Resources for Projects Involving Soil Disturbance.* This mitigation measure is required for projects that would result in soil disturbance and are not subject to Mitigation Measure M-CUL-4a.

Should any indication of an archaeological resource, including human remains, be encountered during any soil-disturbing activity of the project, the project head foreman and/or project sponsor shall immediately notify the Environmental Review Officer and immediately suspend any soil-disturbing activities in the vicinity of the discovery until the Environmental Review Officer has determined what additional measures should be undertaken.

If the Environmental Review Officer determines that an archaeological resource may be present within the project site, the project sponsor shall retain the services of an archaeological consultant from the pool of qualified archaeological consultants maintained by the San Francisco Planning Department archaeologist. The archaeological consultant shall advise the Environmental Review Officer as to whether the discovery is an archaeological resource, whether it retains sufficient integrity, and whether it is of potential scientific/historical/cultural significance. If an archaeological resource is present, the archaeological consultant shall identify and evaluate the archaeological resource. The archaeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the Environmental Review Officer may require, if warranted, specific additional measures to be implemented by the project sponsor.

Measures might include preservation of the archaeological resource in situ, an archaeological monitoring program, an archaeological testing program, or an archaeological treatment program. If an archaeological treatment program, archaeological monitoring program, or archaeological testing program is required, it shall be consistent with the San Francisco Planning Department's Environmental Planning Division guidelines for such programs. The Environmental Review Officer may also require that the project sponsor immediately implement a site security program if the archaeological resource is at risk from vandalism, looting, or other damaging actions. If human remains are found, all applicable state laws will be followed, as outlined in Impact CUL-7, and an archaeological treatment program will be implemented in consultation with appropriate descendant groups and approved by the Environmental Review Officer.

The project archaeological consultant shall submit a Final Archaeological Resources Report to the Environmental Review Officer that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological monitoring/data recovery program(s) undertaken. Information that may put at risk any archaeological resource shall be provided in a separate removable insert within the final report.

Copies of the Draft Final Archaeological Resources Report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, copies of the Final Archaeological Resources Report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy, and the Environmental Review Officer shall receive a copy of the transmittal of the Final Archaeological Resources Report to the Northwest Information Center. The Environmental Planning Division of the San Francisco Planning Department shall receive one bound copy, one unbound copy, and one unlocked, searchable PDF copy on a compact disc of the Final Archaeological Resources Report, along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest or interpretive value, the Environmental Review Officer may require a different final report content, format, and distribution from that presented above.

M-CUL-4c: Requirement for Archaeological Monitoring for Streetscape and Street Network Improvements. Based on reasonable potential that archaeological resources may be present within the Hub Plan area, in instances where streetscape and street network improvements are proposed that include soil disturbance of 2 feet or more below the street grade, the following measures shall be undertaken to avoid any potentially significant adverse effects from the proposed project on buried or submerged historical resources and human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archaeological consultant from the rotational Qualified Archaeological Consultants List maintained by the San Francisco Planning Department archaeologist. After the first project approval action, or as directed by the Environmental Review Officer, the project sponsor shall contact the San Francisco Planning Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the Qualified Archaeological Consultants List. The archaeological consultant shall undertake an archaeological monitoring program. All plans and reports prepared by the

consultant, as specified herein, shall be submitted first and directly to the Environmental Review Officer for review and comment and considered draft reports, subject to revision until final approval by the Environmental Review Officer. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the Environmental Review Officer, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource, as defined in California Environmental Quality Act Guidelines section 15064.5(a) and (c).

Consultation with Descendant Communities: On discovery of an archaeological site⁷⁶ associated with descendant Native Americans, overseas Chinese, or other potentially interested descendant group, an appropriate representative⁷⁷ of the descendant group and the Environmental Review Officer shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archaeological field investigations of the site and offer recommendations to the Environmental Review Officer regarding appropriate archaeological treatment of the site, recovered data from the site, and, if applicable, any interpretative treatment of the associated archaeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.

Archaeological Monitoring Program. The archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological monitoring program reasonably prior to commencement of any project-related soil-disturbing activities. The Environmental Review Officer, in consultation with the project archaeologist, shall determine which project activities shall be archaeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation,

⁷⁶ The term “archaeological site” is intended here to minimally include any archaeological deposit, feature, burial, or evidence of burial.

⁷⁷ An “appropriate representative” of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American contact list for the City and County of San Francisco maintained by the California Native American Heritage Commission and, in the case of the overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the San Francisco Planning Department archaeologist.

foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the potential risk these activities pose to archaeological resources and their depositional context.

- The archaeological consultant shall undertake a worker training program for soil-disturbing workers that shall include an overview of expected resource(s), how to identify the evidence of the expected resource(s), and the appropriate protocol in the event of apparent discovery of an archaeological resource.
- The archaeological monitor(s) shall be present on the project site, according to a schedule agreed upon by the archaeological consultant and the Environmental Review Officer until the Environmental Review Officer has, in consultation with the archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits.
- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis.
- If an intact archaeological deposit is encountered, all soil-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile-driving/construction crews and heavy equipment until the deposit is evaluated. In the case of pile driving or deep foundation activities (foundation, shoring, etc.), if the archaeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archaeological resource, the pile driving or deep foundation activities shall be terminated until an appropriate evaluation of the resource has been made in consultation with the Environmental Review Officer. The archaeological consultant shall immediately notify the Environmental Review Officer of the encountered archaeological deposit. The archaeological consultant shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, present the findings of this assessment to the Environmental Review Officer.

If the Environmental Review Officer, in consultation with the archaeological consultant, determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor, either:

- The proposed project shall be redesigned to avoid any adverse effect on the significant archaeological resource, or

- An archaeological data recovery program shall be implemented, unless the Environmental Review Officer determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

If an archaeological data recovery program is required by the Environmental Review Officer, the archaeological data recovery program shall be conducted in accordance with an archaeological data recovery plan. The project archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological data recovery plan. The archaeological consultant shall prepare a draft archaeological data recovery plan that shall be submitted to the Environmental Review Officer for review and approval. The archaeological data recovery plan shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the archaeological data recovery plan shall identify which scientific/historical research questions are applicable to the expected resource, which data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the archaeological data recovery plan shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloging and Laboratory Analysis.* Descriptions of selected cataloging system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Descriptions of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an onsite/offsite public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Descriptions of proposed report format and distribution of results.

- *Curation.* Descriptions of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains, Associated or Unassociated Funerary Objects. The treatment of human remains and associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the coroner of the City and County of San Francisco and, in the event of the coroner's determination that the human remains are Native American remains, notification of the California Native American Heritage Commission, which shall appoint a most likely descendant (Public Resources Code section 5097.98). The Environmental Review Officer shall also be immediately notified upon discovery of human remains.

The archaeological consultant, project sponsor, Environmental Review Officer, and most likely descendent shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (California Environmental Quality Act Guidelines section 15064.5(d)) within six days of the discovery of the human remains. This proposed timing shall not preclude the Public Resources Code section 5097.98 requirement that descendants make recommendations or preferences for treatment within 48 hours of being granted access to the site. The agreement shall take into consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the Environmental Review Officer to accept recommendations of a most likely descendant. The archaeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects, as specified in the treatment agreement, if such an agreement has been made or, otherwise, as determined by the archaeological consultant and the Environmental Review Officer. If no agreement is reached, state regulations shall be followed, including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report to the Environmental Review Officer that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods

employed in the archaeological testing/monitoring/data recovery program(s) undertaken. The Draft Final Archaeological Resources Report shall include a curation and deaccession plan for all recovered cultural materials. The Draft Final Archaeological Resources Report shall also include an Interpretation Plan for public interpretation of all significant archaeological features.

Copies of the Draft Final Archaeological Resources Report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, the consultant shall also prepare a public distribution version of the Final Archaeological Resources Report. Copies of the Final Archaeological Resources Report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy, and the Environmental Review Officer shall receive a copy of the transmittal of the Final Archaeological Resources Report to the Northwest Information Center. The Environmental Planning Division of the San Francisco Planning Department shall receive one bound and one unlocked, searchable portable document format copy on compact disc of the Final Archaeological Resources Report, along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the Environmental Review Officer may require a different or additional final report content, format, and distribution than that presented above.

Significance after Mitigation

With the implementation of Mitigation Measures M-CUL-4a, M-CUL-4b, and, in instances where street network improvements are proposed within the Hub Plan area, M-CUL-4c, Hub Plan-related impacts on archaeological resources would be reduced to *less-than-significant* levels.

30 VAN NESS AVENUE PROJECT

The proposed project at 30 Van Ness Avenue would include partial retention of an existing five-story building that was constructed in 1908, which does not include a basement, and construction of an approximately 45-story building. The estimated amount of excavation at this location would be 51,000 cubic yards for the foundations and two-level basement. The depth of excavation is expected to be up to 48 feet below grade. Steel soldier piles would be driven at the perimeter of the site as part of a temporary shoring system, and deep auger cast piles would be installed in the BART zone of influence. Although there are no known archaeological resources in the project vicinity, proposed construction activity would extend below the known depth of fill and into undisturbed dune and marsh deposits, which have elevated potential for

containing buried archaeological resources (see “Archaeological Sensitivity and Potential Prehistoric Archaeological Property Types in the Hub Plan Area and Vicinity, Based on Landform Analysis” section). Therefore, project-related excavations at this location have the potential to physically damage or destroy as-yet undocumented archaeological resources, resulting in *significant* impacts on archaeological resources.

Mitigation Measures

M-CUL-4d: Requirements for Archaeological Testing Consisting of Consultation with Descendent Communities, Testing, Monitoring, and a Report. Based on a reasonable presumption that archaeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources and on human remains and associated or unassociated funerary objects. The project sponsor shall retain the services of an archaeological consultant from the rotational Department Qualified Archaeological Consultants List maintained by the San Francisco Planning Department archaeologist. After the first project approval action or as directed by the Environmental Review Officer, the project sponsor shall contact the San Francisco Planning Department archaeologist to obtain the names and contact information for the next three archaeological consultants on the Qualified Archaeological Consultants List. The archaeological consultant shall undertake an archaeological testing program as specified herein. In addition, the consultant shall be available to conduct an archaeological monitoring and/or data recovery program if required pursuant to this measure. The archaeological consultant’s work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer. All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the Environmental Review Officer for review and comment, and shall be considered draft reports subject to revision until final approval by the Environmental Review Officer. Archaeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the Environmental Review Officer, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less-than-significant level potential effects on a significant archaeological resource as defined in California Environmental Quality Act Guidelines sections 15064.5 (a) and (c).

Consultation with Descendant Communities: On discovery of an archaeological site⁷⁸ associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group, an appropriate representative⁷⁹ of the descendant group and the Environmental Review Officer shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archaeological field investigations of the site and to offer recommendations to the Environmental Review Officer regarding appropriate archaeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archaeological site. A copy of the Final Archaeological Resources Report shall be provided to the representative of the descendant group.

Archaeological Testing Program. The archaeological consultant shall prepare and submit to the Environmental Review Officer for review and approval an archaeological testing plan. The archaeological testing program shall be conducted in accordance with the approved archaeological testing plan. The archaeological testing plan shall identify the property types of the expected archaeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archaeological testing program will be to determine to the extent possible the presence or absence of archaeological resources and to identify and evaluate whether any archaeological resource encountered on the site constitutes a historical resource under the California Environmental Quality Act.

At the completion of the archaeological testing program, the archaeological consultant shall submit a written report of the findings to the Environmental Review Officer. If, based on the archaeological testing program, the archaeological consultant finds that significant archaeological resources may be present, the Environmental Review Officer in consultation with the archaeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archaeological testing, archaeological

⁷⁸ The term “archaeological site” is intended here to minimally include any archaeological deposit, feature, burial, or evidence of burial.

⁷⁹ An “appropriate representative” of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and, in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the San Francisco Planning Department archaeologist.

monitoring, and/or an archaeological data recovery program. No archaeological data recovery shall be undertaken without the prior approval of the Environmental Review Officer or the San Francisco Planning Department archaeologist. If the Environmental Review Officer determines that a significant archaeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- The proposed project shall be redesigned to avoid any adverse effect on the significant archaeological resource; or
- A data recovery program shall be implemented, unless the Environmental Review Officer determines that the archaeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archaeological Monitoring Program. If the Environmental Review Officer in consultation with the archaeological consultant determines that an archaeological monitoring program shall be implemented, the archaeological monitoring program shall minimally include the following provisions:

- The archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological monitoring program reasonably prior to commencement of any project-related soil-disturbing activities. The Environmental Review Officer in consultation with the archaeological consultant shall determine which project activities shall be archaeologically monitored. In most cases, any soil-disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archaeological monitoring because of the risk these activities pose to potential archaeological resources and to their depositional context.
- The archaeological consultant shall undertake a worker training program for soil-disturbing workers that shall include an overview of expected resource(s), how to identify the evidence of the expected resource(s), and the appropriate protocol in the event of apparent discovery of an archaeological resource.
- The archaeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archaeological consultant and the Environmental Review Officer until the Environmental Review Officer has, in consultation with project archaeological consultant, determined that project construction activities could have no effects on significant archaeological deposits.

- The archaeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis.
- If an intact archaeological deposit is encountered, all soil-disturbing activities in the vicinity of the deposit shall cease. The archaeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is evaluated. In the case of pile driving or deep foundation activities (foundation, shoring, etc.), if the archaeological monitor has cause to believe that the pile driving or deep foundation activities may affect an archaeological resource, the pile driving or deep foundation activities shall be terminated until an appropriate evaluation of the resource has been made in consultation with the Environmental Review Officer. The archaeological consultant shall immediately notify the Environmental Review Officer of the encountered archaeological deposit. The archaeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological deposit, and present the findings of this assessment to the Environmental Review Officer.

Whether or not significant archaeological resources are encountered, the archaeological consultant shall submit a written report of the findings of the monitoring program to the Environmental Review Officer.

Archaeological Data Recovery Program. The archaeological data recovery program shall be conducted in accord with an archaeological data recovery plan. The archaeological consultant, project sponsor, and Environmental Review Officer shall meet and consult on the scope of the archaeological data recovery plan prior to preparation of a draft archaeological data recovery plan. The archaeological consultant shall submit a draft archaeological data recovery plan to the Environmental Review Officer. The archaeological data recovery plan shall identify how the proposed data recovery program will preserve the significant information the archaeological resource is expected to contain. That is, the archaeological data recovery plan shall identify which scientific/historical research questions are applicable to the expected resource, which data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, shall be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practical.

The scope of the archaeological data recovery plan shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Descriptions of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Descriptions of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an onsite/offsite public interpretive program during the course of the archaeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archaeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Descriptions of proposed report format and distribution of results.
- *Curation.* Descriptions of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains, Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity shall comply with applicable state and federal laws, including immediate notification of the Office of the Chief Medical Examiner of the City and County of San Francisco and, in the event of the medical examiner's determination that the human remains are Native American remains, notification of the California Native American Heritage Commission, who shall appoint a most likely descendant (Public Resources Code section 5097.98). The Environmental Review Officer shall also be immediately notified upon discovery of human remains.

The archaeological consultant, project sponsor, Environmental Review Officer, and most likely descendent shall make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (California Environmental Quality Act Guidelines section 15064.5(d)) within six days of the discovery of the human remains. This proposed timing shall not preclude the Public Resources Code section 5097.98 requirement that descendants make recommendations or preferences for treatment within 48 hours of being granted access to the site. The agreement shall take into

consideration the appropriate excavation, removal, recordation, analysis, curation, possession, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing state regulations or in this mitigation measure compels the project sponsor and the Environmental Review Officer to accept recommendations of a most likely descendant. The archaeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archaeological consultant and the Environmental Review Officer. If no agreement is reached, state regulations shall be followed including the reburial of the human remains and associated burial objects with appropriate dignity on the property in a location not subject to further subsurface disturbance (Public Resources Code section 5097.98).

Final Archaeological Resources Report. The archaeological consultant shall submit a Draft Final Archaeological Resources Report to the Environmental Review Officer that evaluates the historical significance of any discovered archaeological resource and describes the archaeological and historical research methods employed in the archaeological testing/monitoring/data recovery program(s) undertaken. The Draft Final Archaeological Resources Report shall include a curation and deaccession plan for all recovered cultural materials. The Draft Final Archaeological Resources Report shall also include an Interpretation Plan for public interpretation of all significant archaeological features.

Copies of the Draft Final Archaeological Resources Report shall be sent to the Environmental Review Officer for review and approval. Once approved by the Environmental Review Officer, the consultant shall also prepare a public distribution version of the Final Archaeological Resources Report. Copies of the Final Archaeological Resources Report shall be distributed as follows: California Archaeological Site Survey Northwest Information Center shall receive one copy and the Environmental Review Officer shall receive a copy of the transmittal of the Final Archaeological Resources Report to the Northwest Information Center. The Environmental Planning division of the San Francisco Planning Department shall receive one bound and one unlocked, searchable portable document format copy on compact disc of the Final Archaeological Resources Report along with copies of any formal site recordation forms (California Department of Parks and Recreation 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of public interest in or the high interpretive value of the resource, the Environmental Review Officer may require a different or additional final report content, format, and distribution than that presented above.

Significance after Mitigation

With implementation of Mitigation Measure M-CUL-4d, project-related impacts on archaeological resources would be avoided or minimized; when avoidance or minimization is impossible, impacts would be mitigated through archaeological testing. As a result, impacts on archaeological resources would be reduced to *less than significant*.

98 FRANKLIN STREET PROJECT

The proposed project at 98 Franklin Street would include demolition of an existing surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium, with one basement level to accommodate bicycle parking, loading, and other building services and two below-grade vehicular parking levels (a total of three basement levels). The project proposes a mat slab foundation with soil-cement columns across the entire site. The project proposes no building setback on the ground floor and excavation to a depth of 39 feet within the boundaries of the entire lot. The estimated amount of excavation at this location would be approximately 31,670 cubic yards. Specific underground utility relocations associated with this project are unknown but assumed to require excavation to a depth of more than 12 feet. This project also proposes improvements to Lily Street from Franklin Street to Gough Street, including a midblock crossing on Lily Street between Franklin and Gough streets and improvements on the western portion of Oak Street between Van Ness Avenue and Franklin Street. This would include ground-disturbing activities, such as those associated with the installation of lighting for people walking. Although there are no known archaeological resources in the project vicinity, proposed construction activity would extend below the known depth of fill and into undisturbed dune and marsh deposits, which have elevated potential for containing buried archaeological resources (see “Archaeological Setting” section). Therefore, project-related excavations at this location have the potential to physically damage or destroy as-yet undocumented archaeological resources, resulting in *significant* impacts on archaeological resources.

Mitigation Measures

Mitigation Measure M-CUL-4d, described above for the 30 Van Ness Avenue Project, would also be required for the 98 Franklin Street Project.

Significance after Mitigation

With implementation of Mitigation Measure M-CUL-4d, project-related impacts on archaeological resources would be avoided or minimized; when avoidance or minimization is impossible, impacts would be mitigated for through archaeological testing. As a result, impacts on archaeological resources would be reduced to *less than significant*.

Impact CUL-5. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could disturb human remains, including those interred outside of formal cemeteries. (Less than Significant with Mitigation)

As described above, there are no known extant archaeological resources that contain human remains within the Hub Plan area; CA-SFR-28 was discovered in the Hub Plan area but was removed during construction of the Civic Center BART station. However, proposed construction activity associated with subsequent development projects under the Hub Plan, the streetscape and street network improvements, and the two individual development projects, would extend below the known depth of fill and into undisturbed dune and marsh deposits, which have elevated potential for containing buried archaeological resources and associated human remains. Therefore, excavations related to the Hub Plan and the two individual development projects have the potential to damage or destroy known archaeological resource and/or as-yet undocumented archaeological resources that include human remains, resulting in a *significant* impact.

MITIGATION MEASURES

Impacts on archaeologically significant human remains are addressed under Impact CUL-3 and would be mitigated to a less-than-significant level with implementation of Mitigation Measures M-CUL-4a, M-CUL-4b, and M-CUL-4c for the Hub Plan and streetscape improvements as well as Mitigation Measure M-CUL-4d for the individual projects.

SIGNIFICANCE AFTER MITIGATION

Therefore, impacts on human remains would be *less than significant* after implementation of Mitigation Measures M-CUL-4a, M-CUL-4b, and M-CUL-4c for the Hub Plan and streetscape improvements and Mitigation Measure M-CUL-4d for the individual projects.

CUMULATIVE IMPACTS

Impact C-CUL-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built-environment resources. (Significant and Unavoidable with Mitigation)

The cumulative context for historic built-environment resources includes urban development projects and transportation and streetscape improvements occurring within and surrounding the Hub Plan area, which together could lead to impacts to the built environment. The past, present, and reasonably foreseeable future projects within and surrounding the Hub Plan area include numerous development projects that propose new buildings, which would range from five to 55 stories in height, as well as streetscape and public realm improvements. The past, present, and reasonably foreseeable projects include projects that are located within or overlap a portion of the Hub Plan area, as well as projects within its immediate vicinity in the adjacent

Hayes Valley, Mission, Civic Center, and SoMa neighborhoods. The cumulative analysis for built-environment resources also considers the Central SoMa, Western SoMa, and Eastern Neighborhoods Plans, which would lead to changes in the built environment in neighborhoods in the vicinity of the Hub Plan area. The Central SoMa Plan area overlaps with the Western SoMa Light Industrial and Residential Historic District, which also extends into the Hub Plan area. These cumulative projects, in concert with the Hub Plan, have the potential to alter historic built-environment resources (including individual resources and historic districts). As described further below, the total cumulative impact is considered significant.

THE HUB PLAN

As described under Impact CUL-1, the Hub Plan may result in subsequent development occurring on the sites of individual built-environment resources that would involve the resources' demolition or substantial alteration. Among the past, present, and reasonably foreseeable projects are projects that also propose to demolish built-environment resources, including the 30 Otis Street Project (which has demolished the historical resource at 14-18 Otis Street) and the 10 South Van Ness Avenue Project. In addition, the 33 individual built-environment resources within the Hub Plan area that are not locally designated under article 10 or 11 also have the potential to be demolished or substantially altered as a result of the Hub Plan. The site of one of the past, present, or foreseeable projects, the 1629 Market Street Project, encompasses two of the individual built-environment resources, 1601–1605 Market Street and 1629–1637 Market Street. The result of the past, present, and reasonably foreseeable projects is the loss of individual buildings that are listed in, or have been determined eligible for listing in, the national or California register or local historical resource inventory, which is a *significant* impact. The Hub Plan's potential to lead to demolition or substantial alteration of individual built-environment resources would amount to a considerable contribution to a significant cumulative impact.

Historic districts within or adjacent to the Hub Plan area would experience a cumulative impact if Hub Plan activities as well as past, present, and foreseeable projects and plans would be implemented within or adjacent to a single historic district and the combined projects and plans would discernibly interrupt the sense of linkage or continuity that characterizes the district such that its significance would be materially impaired.

Although the Jessie-McCoppin-Stevenson Streets Reconstruction Historic District would experience a significant impact as a result of the Hub Plan, as described under Impact CUL-2, no additional changes would occur to this district as a result of past, present, or foreseeable projects. It is assumed that, for several of the additional historic districts discussed above under Impact CUL-2, implementation of cumulative projects would result in a cumulative impact. For example, the Civic Center Landmark District or the Market Street Cultural Landscape District would experience substantial alterations to character-defining features during implementation of the Better Market Street Project or the Civic Center Public Realm Plan, which would

constitute significant and unavoidable impacts on those built-environment resources. The cumulative impact on the Civic Center Landmark District and the Market Street Cultural Landscape District would be *significant*. As demonstrated above, however, the Hub Plan itself would result in only nominal changes to the significant characteristics and settings of the Civic Center Landmark District and Market Street Cultural Landscape District such that the Hub Plan itself would not contribute considerably to cumulative impacts on these historic districts. Furthermore, the Hub Plan would have the potential to substantially change the characteristics of the AWSS, which would also experience a degree of change as the result of other projects (i.e., the relocation of hydrants along the Market Street corridor under the Better Market Street Project). Overall, these projects would result in a *significant* cumulative impact on the AWSS, and the Hub Plan's contribution would be considerable.

Mitigation Measures

Implementation of Mitigation Measures M-CUL-1a, Avoid or Minimize Effects on Identified Built Environment Resources; M-CUL-1b, Prepare and Submit Historical Documentation of Built Environment Resources; M-CUL-1c, Develop and Implement an Interpretive Program for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; M-CUL-1d, Video Recordation for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District; and M-CUL-1e, Architectural Salvage for Projects Demolishing or Altering a Historical Resource or Contributor to a Historic District, would not reduce the Hub Plan's contribution to the cumulative impact on individual built-environment resources or historic district contributors to a less-than-considerable level because these measures would not be enough to avoid, rectify, reduce, or compensate for the loss of individual built-environment resources.

Implementation of M-CUL-1f, New Locations for Contributing Auxiliary Water Supply System Elements to Preserve Historic District Character, would ensure that those AWSS features located where streetscape and street network improvements would occur under the Hub Plan would not be altered in an adverse manner. With the implementation of M-CUL-1f, all AWSS features moved as a result the Hub Plan would remain near their current locations and would continue to support the operation of the overall system such that the Hub Plan's contribution to the cumulative impact would be reduced to a less-than-considerable level.

Significance after Mitigation

Because demolition of built-environment resources or alteration in an adverse manner could still occur, the cumulative impact of the Hub Plan on individual built-environment resources would remain *significant and unavoidable* after the application of mitigation.

Impact C-CUL-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in demolition and/or alteration of built-environment resources. (Less than Significant)

As discussed under Impact C-CUL-1, cumulative projects, in concert with the two individual development projects, have the potential to alter historic built-environment resources (including individual resources and historic districts); the total cumulative impact is considered significant.

30 VAN NESS AVENUE PROJECT

As discussed above, the total cumulative impact to historic resources is considered significant. As discussed under CUL-2, the existing building at 30 Van Ness Avenue is not a historical resource for the purposes of CEQA, and development of the site would result in less-than-significant impacts on nearby historic districts. Thus, the 30 Van Ness Avenue Project would not result in a cumulatively considerable contribution to this overall cumulative impact; the impact would be *less than significant*.

98 FRANKLIN STREET

As discussed above, the total cumulative impact to historic resources is considered significant. As discussed under CUL-2, no historical resource would be demolished or relocated to accommodate construction of the proposed tower and development of the site would result in less-than-significant impacts on nearby historic districts. Thus, the 98 Franklin Street Project does not result in a cumulatively considerable contribution to this overall cumulative impact; the impact would be *less than significant*.

Impact C-CUL-3. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, could result in a significant cumulative impact on archaeological resources and human remains. (Less than Significant with Mitigation)

The cumulative context for archaeological resources and human remains includes urban development projects and transportation and streetscape improvements occurring within and surrounding the Hub Plan area, which together could lead to ground-disturbing activities that could result in impacts on archaeological resources and human remains. The past, present, and reasonably foreseeable future projects within and surrounding the Hub Plan area include numerous development projects that propose new buildings, which would range from five to 55 stories in height, as well as streetscape and public realm improvements. The cumulative analysis for archaeological resources considers nearby projects that involve ground disturbance, such as the projects at 10 South Van Ness Avenue and 1500 Mission Street, as well as the Better Market Street and Van Ness Avenue Bus Rapid Transit projects, all of which have identified the potential for archaeological discovery. These cumulative projects, in concert with the Hub Plan

and two individual development projects, have the potential to demolish, destroy, relocate, or alter archaeological resources and human remains. Taken together, the Hub Plan and the identified cumulative projects have the potential to result in an overall cumulative impact on archaeological resources and/or human remains.

THE HUB PLAN

As described under Impact CUL-4, the Hub Plan would result in ground-disturbing activities in areas identified as having moderate to high sensitivity for containing buried undocumented historical and prehistoric archaeological resources, which may also contain human remains. These ground-disturbing activities have the potential to affect undocumented archaeological resources and human remains. Therefore, the Hub Plan, when considered with the past, present, and reasonably foreseeable future projects within and surrounding the Hub Plan area that would include ground-disturbing activities with the potential to encounter sediments that have moderate to high archaeological sensitivity, has the potential to contribute considerably to the overall cumulative impact on archaeological resources and human remains; the impact would be *significant*.

30 VAN NESS AVENUE PROJECT

The proposed 30 Van Ness Avenue Project would result in excavation to a depth of 48 feet below grade within the boundaries of the entire lot. These ground-disturbing activities would occur in areas identified as having moderate to high sensitivity for containing buried undocumented historical and prehistoric archaeological resources, which may also contain human remains. Therefore, these ground-disturbing activities have the potential to affect undocumented archaeological resources and human remains, as discussed above under Impact CUL-4. The 30 Van Ness Avenue Project, when considered with cumulative projects that would include ground-disturbing activities that have the potential to encounter sediments that have moderate to high archaeological sensitivity, has the potential to contribute considerably to the overall cumulative impact on archaeological resources and human remains; the impact would be *significant*.

98 FRANKLIN STREET

The proposed 98 Franklin Street Project would result in excavation to a depth of 39 feet within the boundaries of the entire lot. Specific underground utility relocations associated with this project are unknown but assumed to require excavation to a depth of more than 12 feet. These ground-disturbing activities would occur in areas identified as having moderate to high sensitivity for containing buried undocumented historical and prehistoric archaeological resources, which may also contain human remains, as discussed above under Impact CUL-4. Therefore, these ground-disturbing activities have the potential to affect known and undocumented archaeological resources and human remains. The 98 Franklin Street Project,

when considered with cumulative projects that would include ground-disturbing activities that have the potential to encounter sediments that have moderate to high archaeological sensitivity, has the potential to contribute considerably to the overall cumulative impact on archaeological resources and human remains; the impact would be *significant*.

SUMMARY OF IMPACTS

The Hub Plan and the two individual projects, when considered with past, present, and reasonably foreseeable projects, would contribute considerably to a cumulative impact on archaeological resources and human remains because they have the potential to damage or destroy as-yet undocumented archaeological resources and human remains that have the potential to be eligible for listing in the California register.

Mitigation Measures

Implementation of Mitigation Measure M-CUL-4a, Project-Specific Preliminary Archaeological Review for Projects Involving Soil Disturbance; M-CUL-4b, Procedures for Accidental Discovery of Archaeological Resources for Projects Involving Soil Disturbance; Mitigation M-CUL-4c, Requirement for Archaeological Monitoring for Streetscape and Street Network Improvements; and M-CUL-4d, Requirements for Archaeological Testing Consisting of Consultation with Descendent Communities, Testing, Monitoring, and a Report, would reduce cumulative impacts of the Hub Plan and individual projects on archaeological resources and human remains *to less-than-significant* levels.

Significance after Mitigation

With implementation of mitigation measures, the contribution from the Hub Plan and individual development projects on archaeological resources and human remains would be reduced to less than considerable level. The impact is would be *less than significant* after mitigation.

3.B TRANSPORTATION AND CIRCULATION

This section presents existing transportation and circulation conditions and analyzes potential program-level, project-level, and cumulative impacts on transportation and circulation during construction and operation of the Hub Plan,¹ two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub Housing Sustainability District (HSD). Transportation-related topics include vehicle miles traveled (VMT), driving hazards, transit, people walking and people bicycling, loading, emergency access, vehicular parking, and construction activities that may affect the transportation network. Supporting detailed technical information is included in Appendix D, *Transportation Supporting Information*.

Issues identified in response to the notice of preparation (NOP) (Appendix A) related to the proposed project's physical environmental impacts were considered in preparing this analysis. The City and County of San Francisco (City) received 10 written and five oral NOP comments related to transportation and circulation. The NOP comments were related to transit capacity, loading, walkable streets, and vehicular parking, and are available for review in Appendix A.

ENVIRONMENTAL SETTING

TRANSPORTATION STUDY AREA

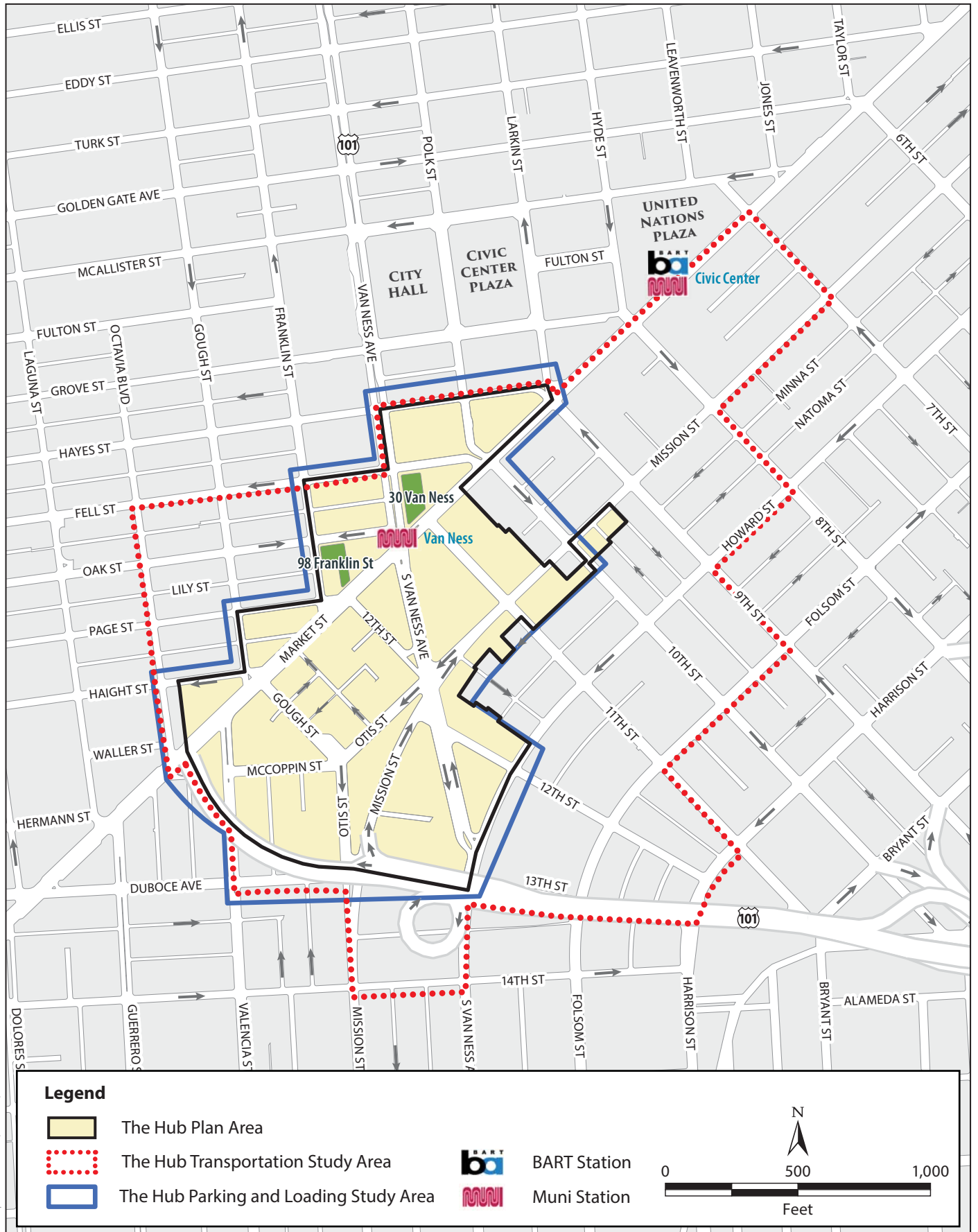
The Hub Plan could affect transportation and circulation in areas surrounding the Hub Plan area. Therefore, a larger transportation study area that encompasses the Hub Plan area and other areas, including the sites for the 30 Van Ness Avenue Project and 98 Franklin Street Project, was identified. The transportation study area is generally bounded by Hayes and Market streets to the north, Octavia Boulevard to the west, Duboce Avenue and 13th Street to the south, and Seventh through 11th streets, which zigzag between Market and 13th streets to the east. **Figure 3.B-1** shows the extent of the Hub Plan area, the location for the two individual development projects, and the boundaries of the transportation study area. The boundaries of the smaller parking and loading study area are also presented on **Figure 3.B-1**.

LOCAL AND REGIONAL ROADWAYS

Regional Vehicular Access

U.S. 101 and I-80 provide primary regional highway access to the Hub Plan area. U.S. 101 serves San Francisco and the Peninsula/South Bay; it also extends northward via the Golden Gate Bridge to the North Bay. Van Ness Avenue serves as U.S. 101 between Market Street and

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).



Note: The Hub Parking and Loading Study Area excludes portions of the Hub Plan Area that only cover a partial block face.

Lombard Street. I-80 connects San Francisco to the East Bay and points east via the San Francisco-Oakland Bay Bridge. U.S. 101 and I-80 merge about 1 mile southeast of the Hub Plan area. Access to I-80/U.S. 101 is provided via on-ramps and off-ramps (some within the Hub Plan area) on Bryant Street at Eighth, Ninth, and 10th streets; on Harrison Street at Seventh and Eighth streets; at South Van Ness Avenue and 13th/Division streets; at Mission Street and Duboce Avenue/13th Street; and at Market Street at Octavia Boulevard.

I-280 is generally a north-south freeway that connects San Francisco with the Peninsula (e.g., Daly City, San Mateo) and the South Bay (e.g., San Jose). I-280 has an interchange with U.S. 101 approximately 3 miles south of the Hub Plan area; it terminates in San Francisco at surface streets in the Mission Bay neighborhood. Near the Hub Plan area, I-280 is a six- to eight-lane bidirectional freeway. The closest access to I-280 is provided at Sixth Street (at Brannan Street) and King Street (at Fifth Street), approximately 1.5 miles southeast of the Hub Plan area.

Local Vehicular Access

This section provides a description of the existing local roadway system in the vicinity of the Hub Plan area. It includes information regarding the San Francisco General Plan roadway designation, the number of travel lanes, vehicular traffic flow direction, and bicycle facilities. Appendix D to this EIR includes the street classification and general plan designation of other local streets in the transportation study area.²

The Hub Plan area is located where two street grids intersect. Streets run north-south and east-west north of Market Street and northwest-southeast and southwest-northeast south of Market Street. South of Market Street, streets that run northwest/southeast are generally considered north-south streets (e.g., Valencia Street, Gough Street, South Van Ness Avenue), whereas streets that run southwest/northeast are generally considered east-west streets (e.g., Mission Street, 13th Street).

The grid offers multiple route options for intra-city travel or access to the regional highway network. These route options include the following streets: Octavia Boulevard, Duboce and South Van Ness avenues, and Market, Mission, 10th, Ninth, Eighth, and Seventh streets.

² City road designations within the San Francisco General Plan include (listed in the order of potential vehicle capacity) freeways, major arterials, transit conflict streets, secondary arterials, recreational streets, collector streets, and local streets. Each of these roadways has a different potential capacity for mixed-flow traffic and changes that might alter traffic patterns on the given roadway. The general plan also identifies certain Transit Preferential Streets from among the city's various roadways, each of which is identified as a Primary Transit Street—Transit Oriented, Primary Transit Street—Transit Important, or Secondary Transit Street. The Pedestrian Network classifies streets throughout the city. It identifies streets that have been developed primarily for use by people walking and includes the Citywide Pedestrian Network Streets and Neighborhood Pedestrian Streets. City and County of San Francisco, *San Francisco General Plan, 2007, Transportation Element*, http://generalplan.sfplanning.org/I4_Transportation.htm#TRA_REG_5_4.

Numerous streets within the transportation study area are one-way streets, as shown in **Figure 3.B-1**, p. 3.B-2, and have multiple travel lanes. The general plan contains definitions and regulatory requirements for the variety of roadway classifications that make up the city's street network; it also includes roadway designations. Within the transportation study area, Franklin, Fell, Howard, Folsom, Harrison, Seventh, Eighth, Ninth, and 10th streets; portions of Market, Oak, and Gough streets; a portion of Octavia Boulevard; Van Ness Avenue; and a portion of Duboce Avenue are classified as Major Arterials.³ One-way streets classified as Major Arterials typically have three to five travel lanes in each direction, while bidirectional streets generally have one to three travel lanes. Van Ness Avenue and Mission, Market, 11th, Page, and Fell streets are identified as Transit Preferential Streets. Market, Mission, Franklin, and Gough streets; a portion of 11th Street; Van Ness Avenue; and a portion of Octavia Boulevard are identified as Neighborhood Pedestrian Streets. Streets within the transportation study area that are part of or intersect the Vision Zero High Injury Network⁴ include sections of Gough, Oak, Valencia, Market, Mission, Howard, Folsom, Harrison, Eighth, Ninth, 10th, 11th, and 13th streets as well as Van Ness Avenue and Octavia Boulevard.

Key streets within the transportation study area, including those where streetscape and street network improvements are proposed as part of the Hub Plan and/or streets adjacent to the proposed development projects at 30 Van Ness Avenue and 98 Franklin Street, are listed below.

Fell Street is an east–west roadway between Stanyan and Market streets. It is a one-way street westbound between Golden Gate Park and Gough Street (forming a one-way couplet with Fell Street), two-way street between Gough Street and Van Ness Avenue, and one-way street eastbound between Van Ness Avenue and Market Street. At Market Street, Fell Street becomes 10th Street. Within the transportation study area, Fell Street has three travel lanes and on-street vehicular parking on both sides of the street, except during the p.m. peak period (4 p.m. to 6 p.m.) when vehicular parking on the south side of the street is converted to an extra westbound travel lane. In the general plan, Fell Street is designated as a Major Arterial in the Congestion Management Program Network. Fell Street west of Octavia Boulevard is part of the Metropolitan Transportation System Network.

³ Major arterials are cross-town thoroughfares whose primary purpose is to link districts within the city and distribute vehicle traffic to and from the regional freeway facilities. Within the transportation study area, Market, Mission, Howard, Folsom, and Harrison streets are identified in the general plan as major east–west arterials, and Van Ness Avenue, Franklin Street, and Gough Street are identified as major north–south arterials.

⁴ The Vision Zero High Injury Network maps corridors with a high concentration of severe injuries and deaths, with an emphasis on those involving people walking and people bicycling. The High Injury Network analysis is based on a multiyear corridor-level analysis of collision data, helping inform transportation injury prevention initiatives and investments to save lives and reduce the severity of injuries.

Franklin Street is a one-way, northbound-only arterial connecting Market Street to Lombard Street (U.S. 101 to the Golden Gate Bridge), forming a one-way couplet with Gough Street, which operates southbound only south of Sacramento Street. Franklin Street generally has three or four travel lanes (i.e., four travel lanes when p.m. peak-period tow-away restrictions are in effect) and vehicular parking on both sides of the street. The general plan classifies Franklin Street as a Major Arterial in the Congestion Management Program Network, part of the Metropolitan Transportation System Network,⁵ and a Neighborhood Commercial Street between Golden Gate Avenue and Market Street.

Duboce Avenue is an east–west roadway between Mission Street and Buena Vista Terrace; Duboce Avenue is closed to vehicular traffic between Market and Church streets. Between Mission and Market streets, Duboce Avenue has two or three westbound travel lanes and one or two eastbound lanes, with on-street vehicular parking on both sides of the street. Between Church Street and Buena Vista Terrace, Duboce Avenue has one or two lanes in each direction and vehicular parking on both sides of the street. The general plan identifies Duboce Avenue as a Transit Preferential Street (transit oriented) between Church and Noe streets. There is a two-way class III bicycle route with shared-lane markings on Duboce Avenue between Sanchez and Fillmore streets, an eastbound class III bike route between Fillmore and Church streets, a westbound class II bike lane between Fillmore and Church streets, and a class I off-street bike path between Church and Market streets. The general plan identifies Duboce Avenue between Mission and Market streets as a Major Arterial in the Congestion Management Program Network and part of the Metropolitan Transportation System Network.

Gough Street connects Lombard Street (U.S. 101 from the Golden Gate Bridge) to Otis Street. Gough Street is a one-way southbound-only arterial south of Sacramento Street to Market Street, forming a one-way couplet with Franklin Street (which operates northbound only). The approximately 400-foot segment of Gough Street between Market and Otis streets is a two-way street. Gough Street generally has three or four travel lanes (i.e., four travel lanes when p.m. peak-period tow-away restrictions are in effect), with vehicular parking on both sides of the street. In the general plan, Gough Street is designated as a Major Arterial in the Congestion Management Program Network, part of the Metropolitan Transportation System network, and a Neighborhood Commercial Street between Golden Gate Avenue and Market Street.

⁵ Congestion Management Program Network refers to the network of freeways, state highways, and major arterials established in accordance with state congestion management legislation. Transit Conflict Streets are included in this network as well. The Metropolitan Transportation System Network is a regional network of freeways, major and secondary arterials, transit conflict streets, and recreational streets for San Francisco that meet nine criteria developed by the Metropolitan Transportation Commission as part of the Regional Transportation Plan.

Hayes Street is an east-west roadway that extends between Larkin Street and Golden Gate Park. Hayes Street operates one-way westbound between Larkin Street and Van Ness Avenue, with three westbound travel lanes, and operates two-way west of Van Ness Avenue with one travel lane in each direction, with the exception of the segment between Van Ness Avenue and Gough Street where two to three westbound travel lanes are provided. Hayes Street generally has on-street vehicular parking on both sides of the street; however, there is no parking on the north side of the street between Larkin and Polk streets. In the general plan, Hayes Street is classified as a Major Arterial between Larkin and Gough streets in the Congestion Management Program Network, and is designated as a Neighborhood Commercial Street.

Market Street is an east-west roadway from The Embarcadero to Portola Drive in the Twin Peaks area. Generally, Market Street has two lanes in each direction. Between Fremont and Castro streets, Market Street has streetcar tracks in each direction in the center travel lanes, which accommodate the San Francisco Municipal Railway's (Muni's) F Market & Wharves historic streetcar. There are transit-only lanes on Market Street between 12th Street/Van Ness Avenue and Third Street in the eastbound direction and between Van Ness Avenue and Third Street in the westbound direction. Market Street has separated bikeways or bicycle lanes between Castro Street and halfway between Eighth and Ninth streets in the eastbound direction and between Eighth and Castro streets in the westbound direction. Sharrows are painted in the curb lanes at all other locations on Market Street to indicate that bicycles and vehicles share these lanes. In the general plan, Market Street is classified as a Major Arterial west of Van Ness Avenue in the Congestion Management Program Network and a Transit Conflict Street east of Van Ness Avenue. It is also part of the Metropolitan Transportation System Network, designated as a Neighborhood Commercial Street, a Primary Transit Street – Transit Oriented, and part of the Citywide Pedestrian Network. On-street vehicular parking is not permitted on Market Street in the transportation study area.

Oak Street is an east-west roadway between Van Ness Avenue and Golden Gate Park. West of Franklin Street, Oak Street operates in the eastbound direction only and forms a one-way couplet with Fell Street. Oak Street generally has three eastbound lanes, with on-street vehicular parking on both sides of the street. For the one-block section between Franklin Street and Van Ness Avenue, Oak Street operates in the westbound direction, with one westbound travel lane and on-street vehicular parking on both sides of the street. In the general plan, Oak Street between Franklin Street and Golden Gate Park is classified as a Major Arterial in the Congestion Management Program Network and part of the Metropolitan Transportation System Network.

Otis Street consists of two blocks in an east-west direction (serving westbound vehicular traffic) between the intersection of South Van Ness Avenue and Otis/Mission/12th streets and the intersection of Otis/Gough/McCoppin streets. It runs in a north-south direction (serving southbound vehicular traffic) between the intersections of Otis/Gough/McCoppin streets and Otis/Mission/Duboce/13th streets. Otis Street generally has four travel lanes and on-street

metered vehicular parking on both sides. A class II bicycle lane is provided on the north side of the one-way segment of Otis Street between South Van Ness Avenue and Gough Street. In the general plan, Otis Street is also a designated Neighborhood Commercial Street and a Primary Transit Street – Transit Oriented. At the intersection of South Van Ness Avenue and Otis/Mission/12th streets, the northbound one-way vehicular traffic from Mission Street makes a left turn onto one-way Otis Street.

South Van Ness Avenue is a north–south major arterial between Market and Cesar Chavez streets with two travel lanes in each direction, and on-street parking generally on both sides of the street. South Van Ness Avenue is classified as a Major Arterial in the Congestion Management Program Network in the general plan, a Metropolitan Transportation System Network street, and part of the Citywide Pedestrian Network. Between Market and Mission streets, it is also designated a Neighborhood Commercial Street and a Primary Transit Street – Transit Important. Between Market and 13th streets, South Van Ness Avenue is part of U.S. 101 (see description of Van Ness Avenue, below). Construction of the Van Ness Bus Rapid Transit (BRT) Project, part of the Van Ness Improvement Project, is currently under way. Following completion of that project, South Van Ness Avenue between Market and Mission streets will have two mixed-flow travel lanes in each direction and two transit-only lanes within a median BRT right-of-way.

Van Ness Avenue is the major north–south arterial in the central section of San Francisco between Beach and Market streets. Van Ness Avenue is designated a Major Arterial in the Congestion Management Program Network and a Neighborhood Commercial Street in the general plan. It is also part of the Metropolitan Transportation System Network, a Primary Transit Street – Transit Important, and part of the Citywide Pedestrian Network. As noted under the discussion of South Van Ness Avenue, above, construction of the Van Ness BRT Project is under way. That project will result in two mixed-flow travel lanes in each direction on Van Ness Avenue/South Van Ness Avenue between Mission and Bay streets and two transit-only lanes (one transit-only lane in each direction) within a median BRT right-of-way between Lombard and Mission streets. With the exception of the northbound left turn at Lombard Street and the southbound left turn at Broadway, left turns are not permitted on Van Ness Avenue between Lombard and Market streets. At completion of construction of the Van Ness Avenue BRT Project, on-street vehicular parking will be provided at select locations along the corridor.

Twelfth Street is a north–south roadway between Market and Harrison streets; 12th Street is discontinuous at South Van Ness Avenue. Between Market and Otis streets, 12th Street has one travel lane in each direction, with on-street vehicular parking on both sides of the street.

Thirteenth Street is an east–west roadway between Bryant and Mission streets. It has two or three travel lanes in each direction; on-street vehicular parking is generally provided on both sides of the street. Thirteenth Street continues to the west as Duboce Avenue. The general plan identifies 13th Street as a Major Arterial in the Congestion Management Program Network and part of the Metropolitan Transportation System Network.

Alleys. In addition to these primary streets, there are numerous, and often discontinuous, east–west and north–south alleys. These are generally one-lane streets, with on-street vehicular parking allowed on one or both sides of the street (see **Figure 3.B-1**, p. 3.B-2). Alleys where streetscape and street network improvements are proposed as part of Hub Plan and the 98 Franklin Street Project include Lily Street, located north of Market Street, as well as Rose, Colton, Minna, Lafayette, Stevenson, Brady, Plum, and Jessie streets; Colusa Place; and Chase Court, located south of Market Street.

Traffic Volumes

Intersection turning movement counts were collected at the 51 study intersections shown in **Figure 3.B-2**.⁶ Counts were collected in January 2018 during the p.m. peak period (4 p.m. to 6 p.m.). In addition, a.m. peak-period (7 a.m. to 9 a.m.) counts of people driving, people bicycling, and people walking were conducted at 12 of the 51 study intersections on Van Ness Avenue and South Van Ness Avenue, which are part of U.S. 101. These include the intersection of Van Ness Avenue with Turk, McAllister, Grove, Hayes, Fell, Oak, and Market streets; Van Ness Avenue with Golden Gate Avenue; and South Van Ness Avenue with Mission/Otis, 12th, Howard, and 13th streets. All study intersections are signalized, with the exception of the intersections at Van Ness Avenue/Oak Street (no stop sign), South Van Ness Avenue/12th Street (southbound stop controlled and northbound slip lane),⁷ and South Van Ness Avenue/Howard Street (one-way slip lanes in each direction). Appendix D contains figures for the vehicular traffic volumes by movement at the study intersections.

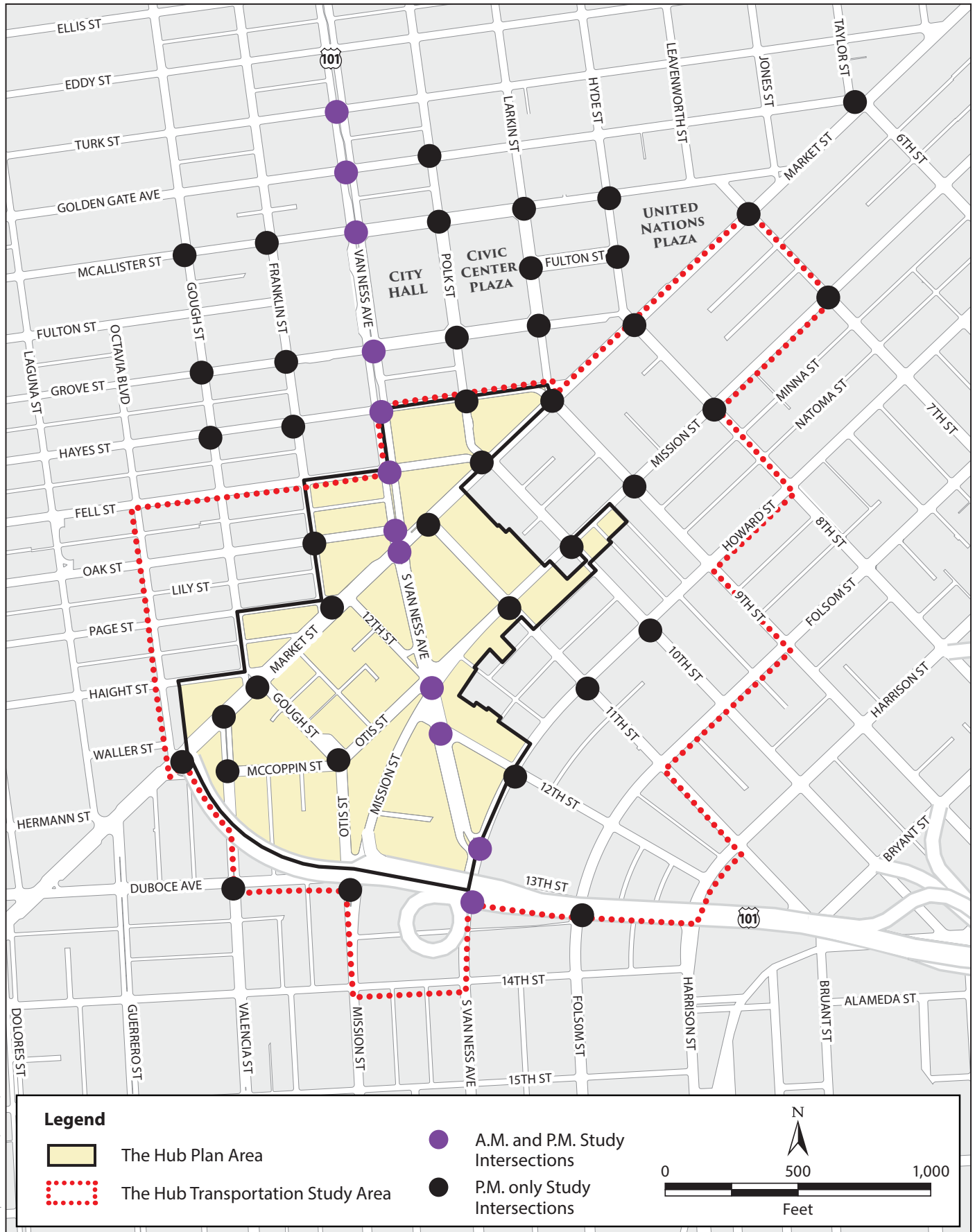
Vehicle Miles Traveled

The San Francisco County Transportation Authority’s (transportation authority’s) San Francisco Chained Activity Modeling Process (SF-CHAMP)⁸ travel demand model was used to estimate average daily VMT per capita for different land uses in the Transportation Analysis Zone

⁶ Study intersections were selected to cover the sphere of influence for both the Hub Plan and adjacent Civic Center Public Realm Plan study areas. All major intersections within the two plan areas were included as well as select additional intersections within the transportation study area.

⁷ A slip lane is a lane at an intersection that allows vehicles to turn at the intersection without actually entering it. It is therefore not controlled by any signal at the intersection. A slip lane is typically separated from other parts of the roadway by a traffic island that is large enough to accommodate people waiting to cross the street.

⁸ The SF-CHAMP model is an activity-based travel demand model that has been validated to represent existing and future transportation conditions in the city. The model predicts all person travel for a full day, based on population and the total number and location of housing units and jobs, which is then allocated to different periods throughout the day using time-of-day submodels. The SF-CHAMP model predicts person travel by way of travel for automobile, transit, and non-motorized modes (e.g., walking, bicycling). The SF-CHAMP model determines vehicle trips by applying an average vehicle occupancy to the person trips by automobile. The SF-CHAMP model also provides forecasts of vehicular traffic on regional freeways, major arterials, and the transportation study area roadway network, considering the available roadway capacity, the origins and destinations of trips, and travel speeds.



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Note: Study intersections were selected to cover the sphere of influence for both the Hub Plan and adjacent Civic Center Public Realm Plan study areas. All major intersections within the two plan areas were included as well as select intersections within the larger transportation study area.

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**Figure 3.B-2
Study Intersections**

(TAZ)⁹ in which the project is located. The VMT per capita ratio represents a measure of the amount and distance that a resident, employee, or visitor drives, accounting for the number of passengers within a vehicle. Many factors affect travel behavior, including density, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development at long distances from other land uses, in areas with minimal access to non-private vehicular modes of travel, generate more automobile travel than development in urban areas with higher density, a mix of land uses, and a variety of ways of travel, other than private vehicles, are available. Given the travel behavior factors described above, San Francisco has a lower average VMT ratio than the nine-county San Francisco Bay Area region. In addition, for the same reasons, different areas of the city have different VMT ratios, and some areas of the city have lower VMT ratios than other areas of the city.

Table 3.B-1 presents existing average daily VMT per capita for residents, employees, and visitors in the nine-county San Francisco Bay Area, the Hub Plan area, and the two TAZs in which the proposed 30 Van Ness Avenue and 98 Franklin Street projects would be located, TAZs 588 and 647, respectively. As shown in **Table 3.B-1**, in the study area people drive substantially less than in the region as a whole, as demonstrated by the fact that, for the transportation study area and the two TAZs, the current average daily VMT per capita figures for the various trip types are substantially lower than the regional Bay Area averages for the nine-county San Francisco Bay Area.

TABLE 3.B-1. DAILY VMT PER CAPITA – EXISTING CONDITIONS

Trip Type (Land Use)	Bay Area Regional Average	Hub Area ^a	TAZ 647 ^b	TAZ 588 ^c
Households (residential)	17.2	3.1	2.5	3.5
Employment (office)	19.1	7.6	7.8	7.6
Visitors (retail)	14.9	8.6	8.1	8.3

Source: San Francisco Planning Department, *Transportation Information Map*, <http://www.sftransportationmap.org>.

^a Average daily VMT per capita for the 15 Transportation Analysis Zones (TAZs) comprising the Hub Plan area.

^b Average daily VMT per capita for TAZ 647, in which the proposed 30 Van Ness Avenue Project is located. TAZ 647 is bounded by Van Ness Avenue, Grove Street, Larkin Street, and Market Street.

^c Average daily VMT per capita for TAZ 588, in which the proposed 98 Franklin Street Project is located. TAZ 588 is bounded by Van Ness Avenue, Market Street, Gough Street, and Oak Street.

⁹ Transportation Analysis Zones (TAZs) are used by planners as part of transportation planning models for transportation analyses and other planning purposes. The TAZs vary in size from single city blocks in the downtown core, multiple blocks in outer neighborhoods, to even larger zones in historically industrial areas such as the Hunters Point Shipyard area.

TRANSIT SERVICE

As shown in **Figure 3.B-3**, numerous Muni bus routes and streetcar and light-rail lines serve the Hub Plan area, with most providing access between the downtown core to the east and the rest of San Francisco.

Local Muni Service

East–west bus routes north of Market Street include 5 Fulton, 5R Fulton Rapid, 7X Noriega Express, 21 Hayes, and 31 Balboa. Muni service along Market Street includes the F Market & Wharves historic streetcar line, the 6 Haight/Parnassus, and the 7 Haight/Noriega. East–west bus routes south of Market Street include the 14 Mission and 14R Mission Rapid on Mission Street, the 12 Folsom-Pacific on Folsom and Harrison streets, and 27 Bryant on Bryant and Harrison streets.

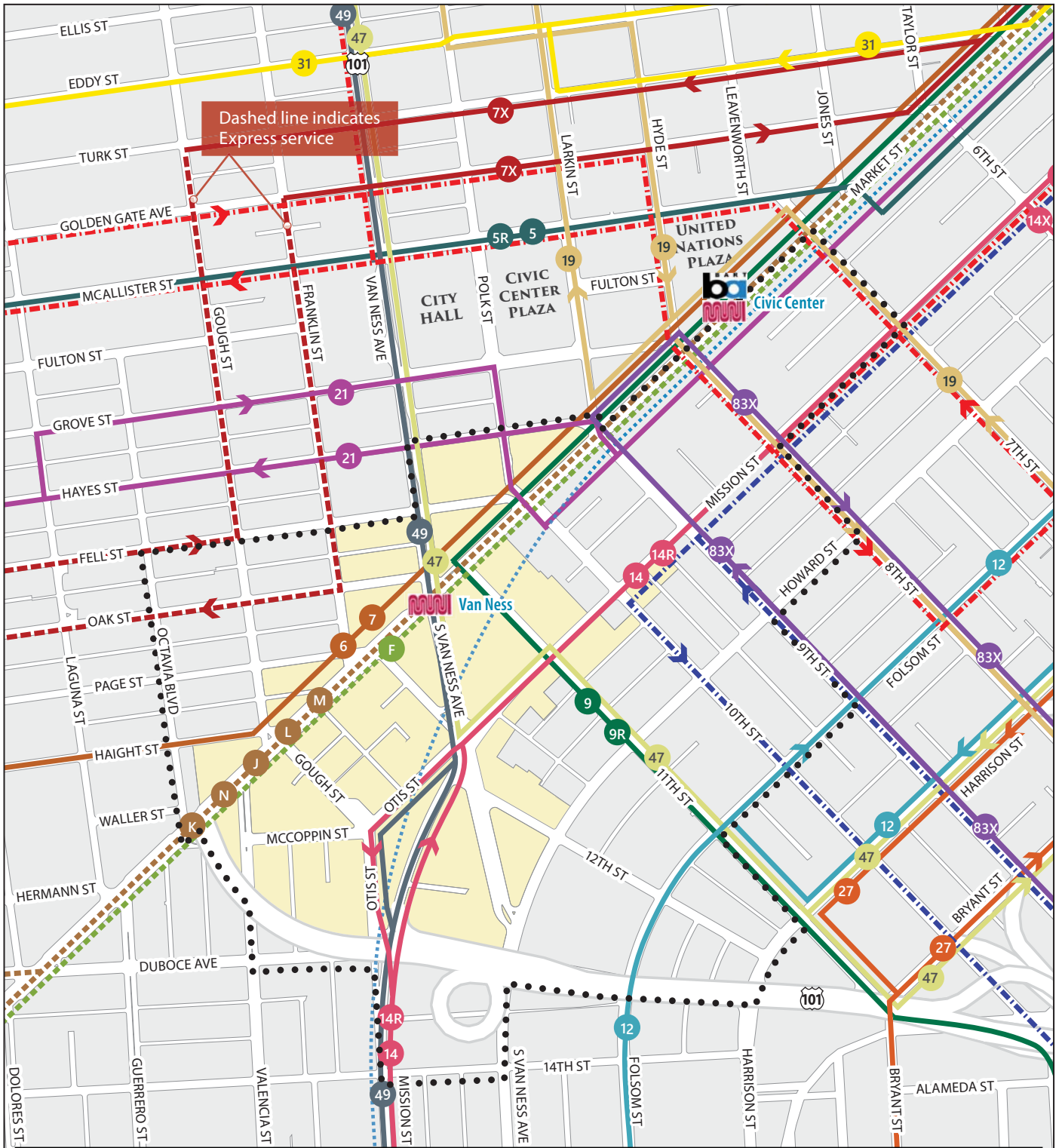
North–south bus routes include the 47 Van Ness and the 49 Van Ness-Mission that run on Van Ness and South Van Ness avenues, the 19 Polk that runs on Hyde and Eighth streets in the southbound direction and Seventh and Larkin streets in the northbound direction, and the 9 San Bruno, 9R San Bruno Rapid and the 83X Mid-Market Express that run along and south of Market Street. In addition to these surface routes, five light-rail lines (i.e., J Church, K Ingleside/T Third Street, L Taraval, M Ocean View, N Judah) operate within a subway along Market Street (i.e., the Market Street Subway). Within the transportation study area, Muni light-rail and the Bay Area Rapid Transit (BART) subway share the Civic Center station; the Van Ness station serves only Muni light-rail lines.

Construction of the Van Ness BRT Project, part of the Van Ness Improvement Project, is currently under way. Following completion of the project, the Muni 30X Marina Express, 47 Van Ness, 49 Van Ness/Mission, 76X Marin Headlands Express, and the 90 San Bruno Owl routes, as well as Golden Gate Transit 4C, 24C, 54C, 30, 70, 101 and 101X routes traveling on Van Ness Avenue north of McAllister Street, will operate within the median transit-only lanes.

During the weekday a.m. and p.m. peak periods, the aforementioned routes and lines within the transportation study area operate with headways of four to 22 minutes between transit vehicles. Five late-night bus routes also operate within the transportation study area between 1 a.m. and 5 a.m. (i.e., K Owl, L Owl, M Owl, N Owl, 90 San Bruno Owl).

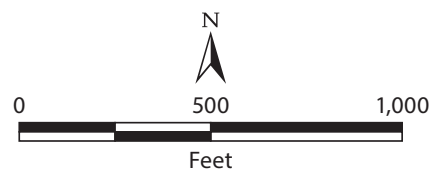
Privately Operated Shuttles

There are several private shuttle services (e.g., the California Pacific Medical Center shuttles) operating on streets in the transportation study area. These services make stops within designated shuttle stops and passenger loading/unloading zones. In addition to privately operated shuttles within San Francisco, there are several commuter shuttles with service between San Francisco and the South Bay (e.g., Facebook, Google shuttles). These also operate



Dashed line indicates Express service

Legend	
	The Hub Plan Area
	The Hub Transportation Study Area
	Golden Gate Transit
	SamTrans
	BART Route & Station
	Muni Metro & Station
	Bus Route
	Direction of transit



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Figure 3.B-3
Existing Transit Network

on streets in the transportation study area. All of these shuttle services are permitted as part of the San Francisco Commuter Shuttle Program.¹⁰ The designated shuttle stops for private shuttles are shown in **Figure 3.B-4**.

Regional Transit Service

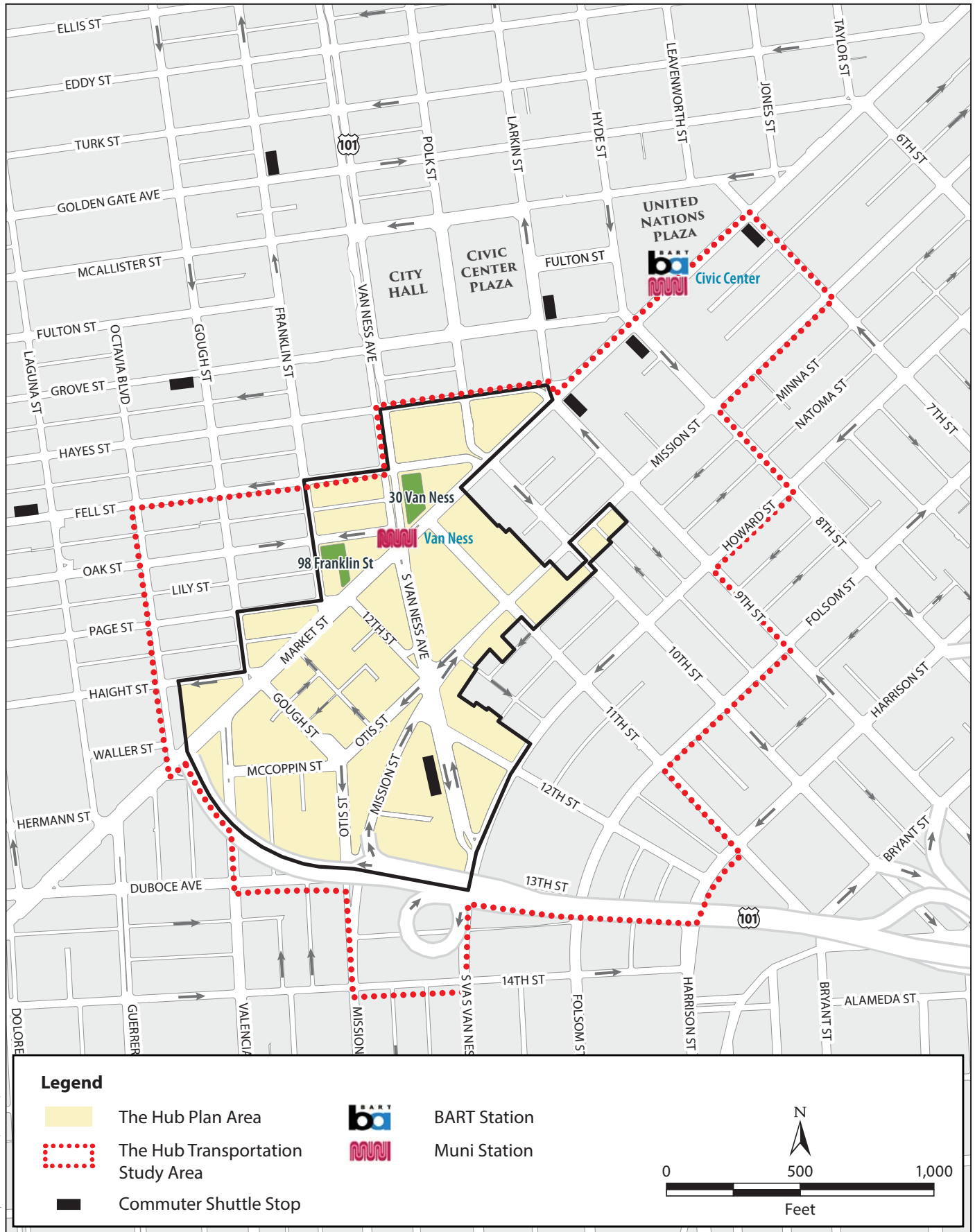
East Bay

Transit service to and from the East Bay is provided by BART, AC Transit, and the Water Emergency Transportation Authority (WETA). BART operates a regional rail transit service between the East Bay (from Antioch, Richmond, Dublin/Pleasanton, and Warm Springs) and San Francisco. It also operates between San Mateo County (e.g., San Bruno, Millbrae) and San Francisco, with connections to San Francisco International Airport. In the transportation study area, the Civic Center BART station is located on Market Street between Seventh and Eighth streets. AC Transit is the primary bus operator within the East Bay, including Alameda County and the western portion of Contra Costa County. AC Transit operates 27 routes between the East Bay and San Francisco, all of which terminate at the Salesforce Transit Center. AC Transit route 800 operates within the transportation study area on South Van Ness Avenue, Valencia Street, Market Street, Mission Street and 11th Street weekdays and weekends generally between 1 a.m. and 7 a.m. This route does not operate during the midday or in the evenings. WETA ferries provide service between San Francisco and Alameda counties and between San Francisco and Oakland from the Ferry Building.

South Bay

Transit service to and from the South Bay is provided by BART, SamTrans, and Caltrain. SamTrans provides bus service between San Mateo County and San Francisco. Ten of its bus lines serve San Francisco; three routes serve the downtown area. In general, SamTrans service to downtown San Francisco operates along Bayshore Boulevard, Potrero Avenue, and Mission Street to the Salesforce Transit Center. SamTrans cannot pick up northbound passengers at San Francisco stops. Similarly, southbound passengers boarding in San Francisco (and destined for San Mateo) may not disembark in San Francisco. SamTrans routes stop at northbound and southbound bus stops on Mission Street. Caltrain provides heavy-rail commuter passenger service between Santa Clara County and San Francisco. Caltrain currently operates 44 trains each weekday, with a combination of express and local service. The closest Caltrain station is at the terminus at Fourth and King streets.

¹⁰ The San Francisco Municipal Transportation Agency's (SFMTA's) Commuter Shuttle Program, approved by the SFMTA Board of Directors in November 2015, set forth new regulations pertaining to shuttle buses, which, among other requirements, restricted larger buses from smaller streets and implemented greener fleets to reduce emissions. These regulations took effect on February 1, 2016.



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 Source: SFMTA Commuter Shuttle Program; Chariot Commuter Transit website.

Figure 3.B-4
SFMTA Commuter Shuttle Program Stops

SamTrans route 397 operates within the transportation study area on Ninth and Tenth streets, as well as on Mission Street, South Van Ness Avenue, Market Street, and 11th Street weekdays and weekends generally between 1 a.m. and 6 a.m. This route does not operate during the midday or in the evenings.

North Bay

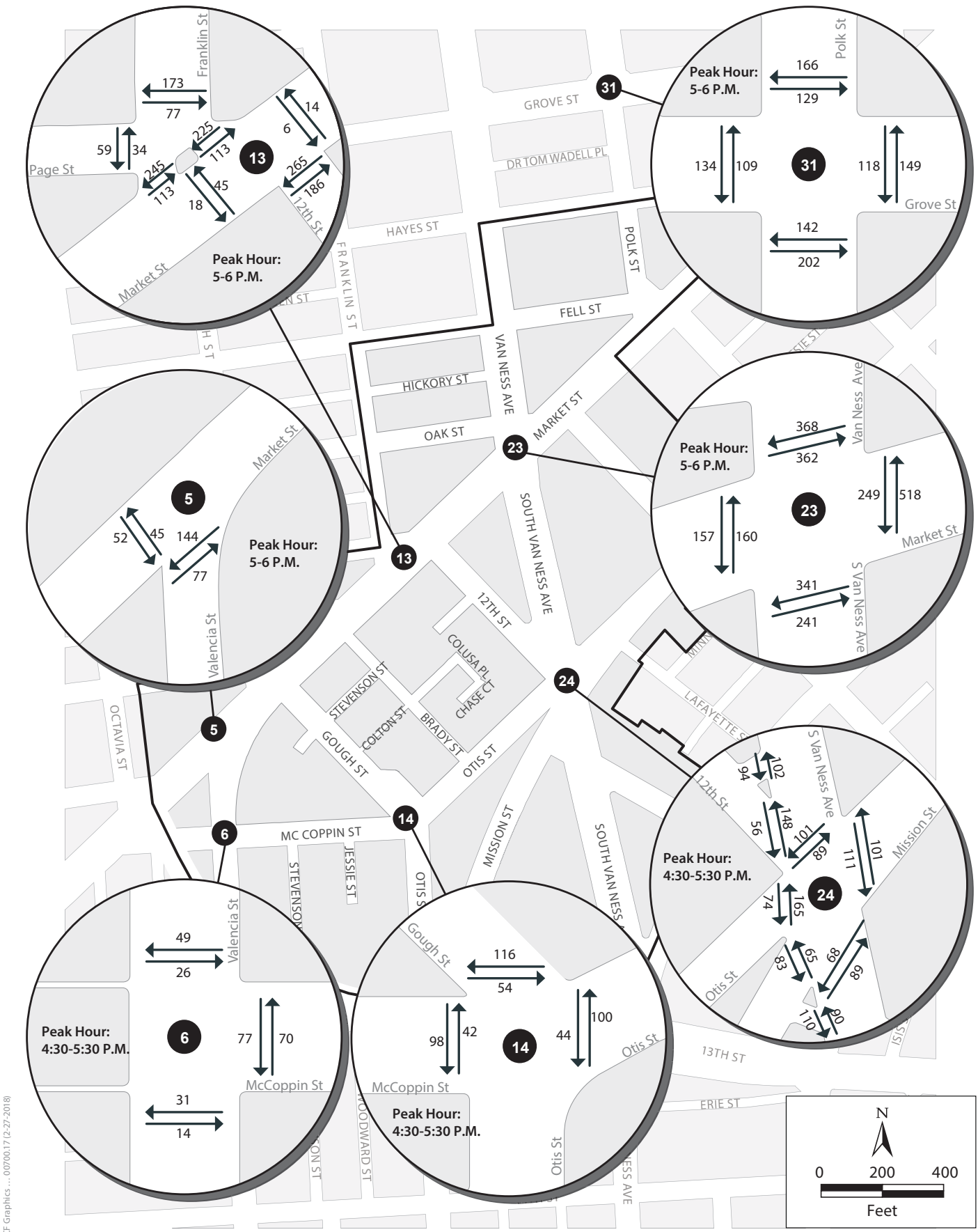
Transit service to and from the North Bay is provided by Golden Gate Transit buses and ferries as well as WETA ferries. Between the North Bay (Marin and Sonoma counties) and San Francisco, Golden Gate Transit operates 18 commuter bus routes, most of which serve the Van Ness Avenue corridor or the Financial District. Golden Gate Transit also operates ferry service between the North Bay and San Francisco. During the a.m. and p.m. peak periods, ferries operate between Larkspur and San Francisco and between Sausalito and San Francisco. WETA ferries provide service between Vallejo and San Francisco.

PEOPLE WALKING/ACCESSIBILITY CONDITIONS

The *Better Streets Plan* provides a basis for the design and function of all streets in San Francisco.¹¹ The street types in the transportation study area range from major ceremonial streets, such as Market Street, to a variety of commercial and residential streets. Recommended sidewalk widths in the *Better Streets Plan* for residential and commercial streets range from 12 to 15 feet, with a recommended 9-foot width for alleys. For downtown commercial streets, the *Better Streets Plan* defers to the *Downtown Streetscape Plan*. Minimum sidewalk width requirements range from 10 to 12 feet for most residential and commercial street types (6 feet for alleys). Existing sidewalks on streets within the transportation study area generally meet the recommended requirements of the *Better Streets Plan*. However, some alleys do not meet the recommended width of 9 feet because of narrow rights-of-way but do meet the minimum width of 6 feet. Within the transportation study area, sidewalks are provided on almost all study area streets. Signal heads and countdown signals for people walking are provided at most signalized intersections.

Counts of people walking during the p.m. peak period were conducted in January 2018 at the study intersections shown in **Figure 3.B-2**, p. 3.B-9, and at three representative sidewalk locations. **Figure 3.B-5** shows the p.m. peak-hour counts of people crossing the street at seven representative study intersections (out of the 51 intersections where counts of people walking were conducted), while **Table 3.B-2**, p. 3.B-17, presents the p.m. peak-hour counts at the three representative sidewalk locations.

¹¹ City and County of San Francisco, *Better Streets Plan*, adopted December 2010, https://sfplanning.org/sites/default/files/archives/BetterStreets/docs/Better-Streets-Plan_Final-Adopted-10-7-2010.pdf, accessed January 9, 2019.



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Figure 3.B-5
Existing P.M. Peak Hour
Pedestrian Crossing Volumes

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
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TABLE 3.B-2. VOLUME OF PEOPLE WALKING ON SIDEWALKS – EXISTING CONDITIONS, WEEKDAY P.M. PEAK HOUR

Sidewalk Segment/Side of the Street	People Walking on Sidewalks
<i>Van Ness Avenue between Hayes and Fell Streets</i>	
East	333
West	298
<i>South Van Ness Avenue between Market and Mission/12th Streets</i>	
East	306
West	230
<i>Market Street between Van Ness Avenue and Franklin/12th Streets</i>	
North	665
South	451

Source: Fehr & Peers/LCW Consulting, 2019.

Note: Counts of people walking conducted in January 2018.

As shown in **Figure 3.B-5**, p. 3.B-16, the highest number of people crossing the street during the p.m. peak hour occurs at Market Street intersections and along Van Ness Avenue, with the highest number of people crossing at the intersection of Van Ness Avenue/South Van Ness Avenue/Market Street. As presented in **Table 3.B-2**, the three representative locations where counts of people walking on sidewalks were conducted, the highest number of people walking was along Market Street, with the number approaching 660 per hour during the p.m. peak hour.

A qualitative evaluation of existing conditions for people walking was conducted during site visits to the transportation study area from January through May 2018. Facilities for people walking were noted at the study intersections, including sidewalks, crosswalks, Americans with Disabilities Act– (ADA-) compliant curb ramps, and countdown signals. In general, the basic conditions for people walking are satisfactory. During field observations, crosswalks and sidewalks were generally observed to be operating with unconstrained conditions, with normal walking speeds and freedom to bypass other people walking; however, some impediments to people walking were observed. These include the following:

- Market Street is a wide street. Because it is situated as a diagonal across two north–south street grids, most intersections have five to six approaches. Five- and six-legged intersections result in greater crossing distances for people crossing than typical four-legged intersections. At some Market Street intersections, marked crosswalks are not provided (e.g., at intersections with alleys, such as Brady Street) or only a single crosswalk is provided for an intersection (e.g., the intersection of Franklin/Market streets).

- The north crossing for people wanting to cross Franklin Street at Oak Street is closed (i.e., permanent barriers with signs direct people to cross the south leg of the intersection).
- Countdown signals for people walking are lacking at select signalized intersections within the transportation study area, including the study intersections of Van Ness Avenue/Fell Street across Van Ness Avenue and Van Ness Avenue/Hayes Street across Van Ness Avenue. The Van Ness BRT/Van Ness Improvement Project, currently under construction, will provide countdown signals for people walking at these locations.
- Although most street corners provide curb ramps within the crosswalk, several side-street approaches have curb ramps that are incorrectly positioned (e.g., located outside the bounds of the marked crosswalk, such as the northeast corner of the intersection of South Van Ness Avenue/12th Street); in some instances, curb ramps are missing. At some locations, ramps are positioned appropriately but lack yellow truncated warning domes (e.g., the intersection of 11th Street/Market Street).
- Crossing locations lack either a ramp or bi-directional ramp. These study intersections include the northeast corner at South Van Ness Avenue/12th Street (ramp faces west instead of south), southeast corner at South Van Ness Avenue/Mission Street (no ramp facing west to cross South Van Ness Avenue), northwest corner at Van Ness Avenue/Oak Street (curb faces east instead of south), northeast corner at Van Ness Avenue/Fell Street (no west-facing ramp to cross Van Ness Avenue), and northeast corner at 10th Street/Howard Street (no west-facing ramp crossing 10th Street).
- Long distances between intersections on South Van Ness Avenue between Mission and 13th streets limit crossing opportunities (including the intersection of Otis Street/South Van Ness Avenue/Mission Street).
- During peak periods, vehicles waiting to cross Market Street block crosswalks; for example, at Gough Street, people driving frequently enter the intersection at Market Street but do not make it the full distance across the intersection and block the crosswalks.
- People bicycling regularly ignoring the signal on eastbound Market Street at 12th Street; this movement has a conflicting signal for people crossing Market Street.
- Deteriorated sidewalks in places, resulting in a potential trip hazard for people walking, particularly in the area bounded by Mission Street, 11th Street, the Central Freeway, and South Van Ness Avenue.
- Narrow sidewalk on the north side of 13th Street east of South Van Ness Avenue and west of Folsom Street.

- Concrete pillar on the northwest corner of South Van Ness Avenue and 13th Street (between the southbound through lane and the right-turn slip lane) obscures visibility of people waiting to cross South Van Ness Avenue.
- Absence of daylighting¹² adjacent to some crosswalks, particularly in the area south of Market Street (e.g., at the intersections of South Van Ness Avenue/Howard Street and 12th Street/Howard Street).

Several streets within the transportation study area have been designated a Vision Zero Corridor as well as Vision Zero High-Injury Network for people walking and people bicycling. Vision Zero is a policy that assists in focusing traffic safety investments to reduce severe and fatal injuries to people walking, bicycling, and driving on streets where most severe or fatal injuries are concentrated. The City adopted Vision Zero as a policy in 2014, with the goal of zero traffic deaths for all ways people travel. Implemented projects such as Safer Market Street and ongoing projects such as the Van Ness Improvement Project are examples of City projects to address safety issues and achieve Vision Zero. Within the transportation study area, streets on the Vision Zero High-Injury Network for 2017 include Van Ness Avenue, Gough Street, Octavia Boulevard, Valencia Street, Oak Street, Market Street, Mission Street, Duboce Avenue/13th Street, 11th Street, 10th Street, and Ninth Street.

The San Francisco Municipal Transportation Agency's (SFMTA's) Traffic Engineering Division conducts an annual assessment of the collision data published by the Statewide Traffic Record System to identify locations that may need special attention and evaluate the progress of previous improvements. In November 2016, SFMTA published the *San Francisco 2012–2015 Collisions Report*,¹³ which analyzed reported injury collisions between vehicles and people walking or bicycling as well as collisions with other vehicles. The report presented an analysis of collisions for the most recent 5-year period for which collision data were available and compared the results to previous annual and 5-year collision totals. The report found that, overall, within the city, non-fatal injury collisions totaled approximately 3,100 per year during the 2012–2015 period. Although the number of non-fatal injury collisions has steadily decreased since 2006, the total number of annual collisions has flattened. However, for the analysis of collisions between vehicles and people walking, since 2012, SFMTA found a decrease in the total number of annual collisions involving people walking. For the 5-year period, 10 intersections were identified as having the highest number of vehicle/people walking injury collisions (i.e., nine or more injury-reported collisions), including the intersection of Seventh Street/Market Street (nine injury collisions). In 2015 and 2016, SFMTA implemented turn

¹² Daylighting is the removal of vehicular parking near intersections and crosswalks to improve the sightline distance and visibility for people.

¹³ San Francisco Municipal Transportation Agency, *San Francisco 2012–2015 Collisions Report*, November 2016, <https://www.sfmta.com/reports/san-francisco-collisions-report-2012-2015>, accessed January 10, 2019.

restrictions and transit-only lane extensions at the intersection of Seventh Street/Market Street as part of the Safer Market Street Project to enhance safety on Market Street between Third and Seventh streets.

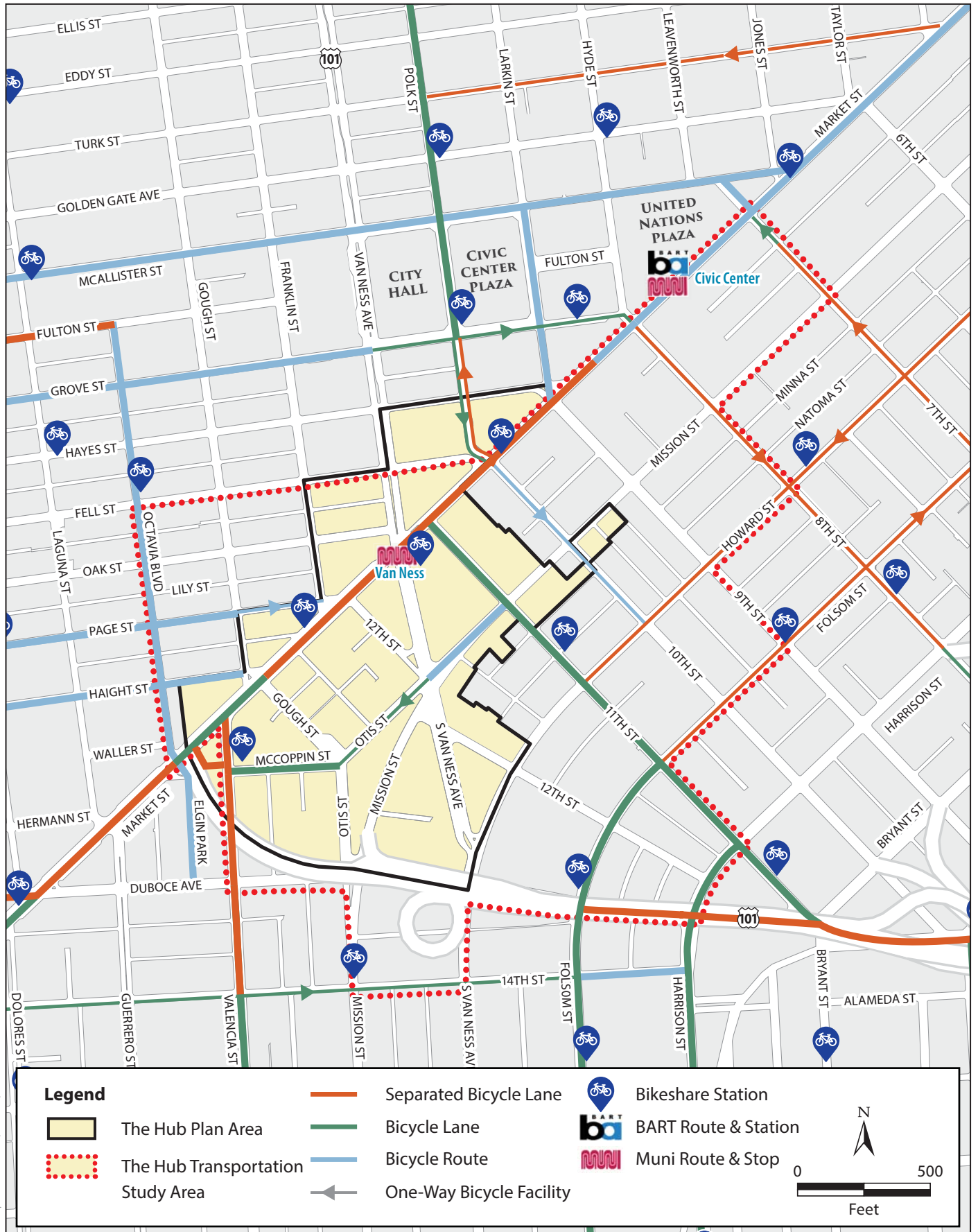
BICYCLING CONDITIONS

Streets in the transportation study area are generally flat, with minimal changes in grade, thereby facilitating bicycling within and through the area. The transportation study area contains several existing bicycle facilities. Bicycle facilities are typically classified as class I, class II, class III, or class IV facilities.¹⁴ Class I bikeways are bike paths with exclusive rights-of-way for use by people bicycling or people walking. Class II bikeways are striped within the paved areas of roadways and established for the preferential use of people bicycling in separated bicycle lanes. Separated bicycle lanes provide a striped, marked, and signed lane that is buffered from vehicular traffic. These facilities, which are located on roadways, reserve 4 to 5 feet of space for bicycle traffic exclusively. Class III bikeways are signed bicycle routes that allow people bicycling to share travel lanes with vehicles and may include a shared-lane marking. A class IV bikeway is an exclusive bicycle facility that is separated from vehicular traffic by a buffer zone (also referred to as a cycle track). The separation from vehicular traffic could be by grade separations, flexible posts, inflexible physical barriers, or on-street vehicular parking. **Figure 3.B-6** presents the bicycle network in the transportation study area.

Within the transportation study area, class II bicycle lanes are provided on Polk Street (southbound), 11th Street (northbound and southbound, except northbound between Market and Mission streets), Folsom Street (eastbound, west of 11th Street), Otis Street (westbound between Van Ness Avenue and Gough Street), McCoppin Street (eastbound between Otis/Gough and Valencia streets), and Grove Street (eastbound between Van Ness Avenue and Market/Eighth streets). Class III bicycle routes are provided on 10th Street (southbound) between Market and Howard streets; Octavia Boulevard, McAllister Street, and Grove Street eastbound between Market Street and Van Ness Avenue; and west of Van Ness Avenue. Class IV separated bicycle facilities are provided on Polk Street (northbound), Eight Street (southbound), 13th Street (both directions, east of Folsom Street), Folsom Street (eastbound, east of 11th Street), Howard Street (westbound), Valencia Street (northbound and southbound), and Market Street (in both directions west of Octavia Boulevard and east of Gough Street). Between Octavia Boulevard and Gough Street, Market Street has class II bicycle lanes. On Market Street, east of Eighth Street, class III facilities are provided in each direction.

As shown in **Figure 3.B-6**, several bike-share stations are within the transportation study area, including four within the Hub Plan area. One or more class 2 bicycle racks (two bicycle parking spaces per rack) are provided on most sidewalks within the transportation study area.

¹⁴ California Streets and Highway Code section 890.4.



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Figure 3.B-6
Existing Bicycle Route Network

Bicycle facilities in the project vicinity are well used. **Table 3.B-3** presents the existing p.m. peak-hour bicycle volumes at representative street segments within the transportation study area where bicycle lanes are provided. Bicycle volume counts were conducted during the p.m. peak period in January 2018. The peak-hour bicycle volumes range from 65 people bicycling on 13th Street to 670 people bicycling on Market Street.¹⁵ The highest bicycle volumes during the p.m. peak hour were observed within the bicycle lanes on Market, Otis, and Valencia streets, which reflect the evening commute of people bicycling as they leave the downtown core.

As presented above in the discussion of conditions related to people walking, SFMTA conducts analyses of collisions within San Francisco to identify high-collision locations (i.e., collisions between vehicles as well as vehicle collisions involving people walking or bicycling) and implement measures to enhance safety. SFMTA's *San Francisco 2012–2015 Collisions Report* contains the latest published findings for the 2012 to 2015 period; it also assesses historical trends. The analysis of data regarding collisions between vehicles and people bicycling found that, after a steady increase in the number of annual injury collisions since 2002, injury collisions involving people bicycling dropped slightly in the period of 2013 through 2015. However, 2015 saw the highest number of severe and fatal bicycle-involved collisions since 2006. For the 2012–2015 period, nine intersections were identified as having the highest number of bicycle-involved injury collisions (i.e., eight or more injury-reported collisions). Two of the intersections are within the transportation study area: U.S. 101 ramps/Octavia Boulevard/Market Street (15 injury collisions) and Valencia Street/Market Street (eight injury collisions).

At the intersection of U.S. 101 off-ramp/Octavia Boulevard/Market Street, SFMTA implemented several enforcement, signage, signal timing, and channelization measures to improve compliance with the eastbound right-turn restriction, a key source of collisions. Although still a high-frequency collision location, there has been a decrease in the number of collisions at this location since 2011.¹⁶ In April 2018, SFMTA implemented protected bicycle lanes west of the Hub Plan area, between Octavia Boulevard and Duboce Avenue, to enhance bicycle travel through this high-frequency collision location. At the intersection of Valencia Street/Market Street, lane striping changes were made in 2011 to reduce the likelihood of Market Street right-turn hook collisions in the eastbound direction and provide a protected left-turn bicycle treatment in the westbound direction.

¹⁵ Bicycle volume counts conducted in January are generally lower than other times of year when days are longer and drier.

¹⁶ San Francisco Municipal Transportation Agency, *San Francisco 2012–2015 Collisions Report*, November 2016.

TABLE 3.B-3. BICYCLE VOLUMES – EXISTING CONDITIONS, WEEKDAY P.M. PEAK HOUR

Street Segment	Type of Class II or IV Bicycle Facility^a	P.M. Peak-Hour Bicycle Volumes^b
<i>Market Street between Valencia and Gough Streets</i>		
Eastbound	bicycle lane	65
Westbound	bicycle lane	535
<i>Market Street between 12th Street and Van Ness Avenue</i>		
Eastbound	separated bikeway	89
Westbound	separated bikeway	531
<i>Market Street between Polk and Larkin Streets</i>		
Eastbound	separated bikeway	91
Westbound	separated bikeway	575
<i>Otis Street between 12th and Gough Streets</i>		
Westbound	bicycle lane	138
Eastbound	—	—
<i>13th Street between Folsom and Harrison Streets</i>		
Eastbound	separated bikeway	7
Westbound	separated bikeway	57
<i>Valencia Street between Market and McCoppin Streets</i>		
Northbound	separated bikeway	40
Southbound	separated bikeway	184
<i>Polk Street between Hayes and Market Streets</i>		
Northbound	separated bikeway	73
Southbound	bicycle lane	46
<i>11th Street between Market and Mission Streets</i>		
Northbound	bicycle lane	61
Southbound	bicycle lane	60

Source: Fehr & Peers/LCW Consulting, 2019.

^a. Both bicycle lanes and separated bikeways are considered to be class II or class IV bikeways. A bicycle lane is a striped, marked, or signed lane for bicycle travel. A separated bikeway is a striped, marked, or signed bicycle lane that is separated from vehicular traffic.

^b. Bicycle counts conducted in January 2018. The peak hour of the two-hour peak period is defined as the four consecutive 15-minute periods with the highest volume of people bicycling at a particular intersection. The peak hour may differ by intersection.

VEHICULAR PARKING CONDITIONS

Existing on-street vehicular parking conditions were examined for the streets in the parking and loading study area, which generally follows the boundaries of the Hub Plan area (see **Figure 3.B 1**, p. 3.B-2), including documentation of the existing supply of on-street general and commercial vehicular parking spaces and the locations of passenger loading/unloading zones. Occupancy surveys of on-street vehicular parking conditions were conducted in May 2018 during the midday period (i.e., between noon and 2 p.m.). In addition, during the May 2018 surveys, publicly accessible off-street vehicular parking facilities in the transportation study area were identified, and vehicular parking supply and occupancy were determined. Appendix D includes detailed summaries of the vehicular parking surveys.

On-Street Vehicular Parking Conditions

Existing on-street vehicular parking conditions were examined within the parking and loading study area. **Table 3.B-4** presents a summary of on-street vehicular parking supply for individual streets and alleys affected by the proposed streetscape and street network improvements as well as the remaining streets in the parking study area. Detailed vehicular parking supply and occupancy information is included in Appendix D.

On-street vehicular parking generally consists of metered, non-metered, and permit parking spaces, including general vehicular parking, commercial vehicular parking, passenger loading/unloading spaces, and ADA-accessible spaces. Overall, there are approximately 1,015 on-street spaces within the parking and loading study area, of which about 87 percent are vehicular parking spaces, 8 percent are commercial vehicle loading spaces, and 5 percent are passenger loading/unloading spaces. In addition, there are about 122 motorcycle parking spaces.

Table 3.B-5, p. 3.B-26, also presents a summary of vehicular parking supply and also includes midday occupancy for individual streets and alleys affected by the proposed streetscape and street network improvements as well as the remaining streets in the parking and loading study area. During the midday period, average on-street occupancy for the 880 metered and non-metered vehicular parking spaces is 96 percent. Streets where Hub Plan streetscape and street network improvements are proposed contain a total of 404 vehicular parking spaces. The overall midday occupancy for these spaces is at 92 percent.

TABLE 3.B-4. PARKING AND LOADING STUDY AREA ON-STREET VEHICULAR PARKING SUPPLY

Parking Study Area Street ^a	Vehicular Parking ^d			Commercial Loading Spaces ^{e,f}	Passenger Zones ^g	
	Metered	Non-metered	Permit		Part Time	Non-metered
12 th Street between Market and Mission streets ^b	33	1	0	4	2	0
Gough Street between Market and Otis streets ^b	32	2	19	0	0	4
South Van Ness Avenue between Mission and 13 th streets ^b	22	0	0	2	7	0
Otis Street between South Van Ness Avenue and Gough Street ^b	26	1	0	3	0	0
Otis Street between Gough Street and Duboce Avenue	19	1	5	1	0	0
Duboce Avenue between Valencia and Otis streets ^b	0	16	0	3	0	0
13 th Street between Otis and Folsom streets ^b	16	66	0	2	0	0
Fell Street between Van Ness Avenue and Market Street	13	0	0	4	10	2
Franklin Street between Page and Oak streets	13	1	0	2	0	1
Oak Street between Franklin Street and Van Ness Avenue	30	1	0	4	0	4
Alleys affected by Hub Plan streetscape and street network improvements ^c	28	49	68	2	4	2
Rest of parking study area streets	313	86	19	53	4	15
Total	545	224	111	80	27	28

Source: Fehr & Peers/LCW Consulting, 2019.

^a. Parking study area presented in **Figure 3.B-1**, p. 3.B-2.

^b. Streets where streetscape and street network improvements are proposed as part of the Hub Plan.

^c. Alleys where streetscape and street network improvements are proposed as part of the Hub Plan. These include all or a portion of Lily, Rose, Minna, Lafayette, Stevenson, Brady, Colton, Plum, and Jessie streets; Colusa Place; and Chase Court (see **Figure 2-3**, p. 2-8).

^d. ADA spaces included in general non-metered spaces. Permit vehicular parking includes San Francisco Department of Public Health, Federal Protection Services, SFMTA, and U.S. Marshal.

^e. Does not include the recessed commercial loading bay on the north side of Market Street between Van Ness Avenue and Franklin Street.

^f. After 6 p.m., the commercial loading spaces become available for general vehicular parking.

^g. On-street passenger loading spaces (i.e., white curb zones) are for passenger loading/unloading activities during certain hours, with a time limit of five minutes. Passenger loading zones include part-time zones (e.g., metered vehicular parking during the day, with a passenger zone during the evening to support a restaurant) and all-day passenger zones (e.g., to support residential uses). All-day zones are non-metered, as are zones on streets without metered vehicular parking.

TABLE 3.B-5. PARKING AND LOADING STUDY AREA ON-STREET VEHICULAR PARKING SUPPLY AND MIDDAY OCCUPANCY

Parking Study Area Street ^a	Vehicular Parking Supply	Midday Occupancy	
	Spaces	Spaces	%
12 th Street between Market and Mission streets ^b	34	34	100%
Gough Street between Market and Otis streets ^b	53	52	98%
South Van Ness Avenue between Mission and 13 th streets ^b	22	22	100%
Otis Street between So. Van Ness Avenue and Gough Street ^b	27	27	100%
Otis Street between Gough Street and Duboce Avenue	25	24	100%
Duboce Avenue between Valencia and Otis streets ^b	16	16	100%
13 th Street between Otis and Folsom streets ^b	82	73	89%
Fell Street between Van Ness Avenue and Market Street	13	13	100%
Franklin Street between Market and Oak streets	14	14	100%
Oak Street between Franklin Street and Van Ness Avenue	31	31	100%
Alleys affected by Hub Plan streetscape and street network improvements ^c	145	125	86%
Rest of parking study area streets	418	413	99%
Total	880	844	96%

Source: Fehr & Peers/LCW Consulting, 2019.

^a. Parking study area presented in **Figure 3.B-1**, p. 3.B-2.

^b. Streets where streetscape and street network improvements are proposed as part of the Hub Plan.

^c. Alleys where streetscape and street network improvements are proposed as part of the Hub Plan. These include all or a portion of Lily, Rose, Minna, Lafayette, Stevenson, Brady, Colton, Plum, and Jessie streets; Colusa Place; and Chase Court (see **Figure 2-3**, p. 2-8).

Off-street Vehicular Parking Conditions

Existing off-street public vehicular parking facility conditions were examined within the transportation study area (see **Figure 3.B-1**, p. 3.B-2). **Table 3.B-6** summarizes off-street public vehicular parking facilities by facility type (i.e., garage or surface lot), their supply, and their midday occupancy. Within the transportation study area, there are 16 off-street public vehicular parking facilities, of which half are vehicular parking garages and half are surface lots. These vehicular parking facilities accommodate a total of 2,209 vehicles, with the majority of the vehicular parking spaces within eight garages (i.e., 1,793 spaces, or 81 percent of the 2,209 spaces). As shown in **Table 3.B-6**, during the midday period, the off-street vehicular parking facilities are well utilized, with average occupancy for the 16 facilities at 93 percent.

TABLE 3.B-6. TRANSPORTATION STUDY AREA OFF-STREET PUBLIC VEHICULAR PARKING SUPPLY AND MIDDAY OCCUPANCY

Facility ^a	Facility Type	Vehicular Parking Supply	Midday	
			Occupied	%
Fox Plaza/1390 Market Street	Garage	400	400	100%
150 Hayes Street	Garage	120	120	100%
One Polk Street	Garage	133	133	100%
1650 Mission Street	Garage	74	72	97%
1660 Mission Street	Garage	52	41	79%
1455 Market Street/55 11 th Street	Garage	194	190	98%
Market Square Garage/840 Jessie Street	Garage	350	300	86%
12 th Street and Kissling Garage	Garage	470	455	97%
Franklin and Oak streets, northeast corner	Surface Lot	40	36	90%
Franklin and Oak streets, southeast corner (98 Franklin Street project site)	Surface Lot	100	100	100%
15 Oak Street	Surface Lot	44	42	95%
1615 Market Street	Surface Lot	69	41	59%
23 Brady Street	Surface Lot	93	86	92%
53 Colton Street	Surface Lot	40	35	88%
Colusa Place	Surface Lot	37	15	41%
1537 Mission Street	Surface Lot	20	16	80%
Total		2,236	2,082	93%

Source: Fehr & Peers/LCW Consulting, 2019.

^a. Transportation study area presented in **Figure 3.B-1**, p. 3.B-2.

In addition to these public off-street facilities within the transportation study area, there are three larger public vehicular parking facilities to the north in the Civic Center area that also have availability. These include the SFMTA Performing Arts Garage, the SFMTA Civic Center Garage, and the Opera Plaza Garage.

- The SFMTA Performing Arts Garage is located on Grove Street between Franklin and Gough streets. This garage, which serves the cultural and civic institutions in the area, contains approximately 600 vehicular parking spaces, is open Monday through Friday between 6 a.m. and midnight, and closed on Saturdays and Sundays, unless an event is scheduled.
- The SFMTA Civic Center Garage is located on McAllister Street between Polk and Hyde streets. This garage contains 845 vehicular parking spaces, is open Monday through Friday between 6 a.m. and midnight, Saturday between 8 a.m. and midnight, and Sunday between 9 a.m. and 10 p.m.

- The Opera Plaza Garage at 601 Van Ness Avenue between Golden Gate Avenue and Turk Street serves the cultural and civic institutions in the area. This garage contains about 400 public vehicular parking spaces and is open seven days a week, 24 hours a day.

PASSENGER AND COMMERCIAL LOADING CONDITIONS

On-street Commercial Loading

As shown in **Table 3.B-4**, p. 3.B-25, there are 80 on-street commercial loading spaces within the parking and loading study area.¹⁷ Of the 80 commercial loading spaces, 70 loading spaces (87 percent) are metered spaces, and 10 spaces (13 percent) are non-metered spaces. Metered and non-metered commercial loading spaces are reserved for loading and unloading activities during weekdays, typically 7 a.m. to 6 p.m., and generally limited to 30 minutes for commercial loading/unloading activities. After 6 p.m., the commercial loading spaces become available for general vehicular parking. Adjacent commercial loading spaces form commercial loading zones (i.e., yellow zones) in which larger trucks may use more than one stall. Commercial loading spaces are reserved for use by freight vehicles with San Francisco commercial permit stickers or similar commercial trucks. As shown in **Table 3.B-7**, the occupancy of the on-street commercial loading spaces within the parking and loading study area is 69 percent during the midday period (i.e., between 12 p.m. and 2 p.m.).

Within the Hub Plan area, there is one bulb-in¹⁸ on Market Street. The recessed loading bay is 140 feet in length and located on the north side of Market Street, between Van Ness Avenue and Franklin Street.

On-street Passenger Loading/Unloading Zones

As shown in **Table 3.B-4**, p. 3.B-25, in addition to commercial loading spaces, there are 55 spaces designated for passenger loading/unloading activities (i.e., white zones) within the parking and loading study area.¹⁹ Passenger loading/unloading zones provide a place to load and unload passengers for adjacent businesses and residences. These zones are intended for safe and efficient passenger drop-off and pickup and require permit renewal biennially. Passenger loading zones are reserved for five-minute passenger or material loading and unloading activities, and vehicles must be attended. Parking for more than 10 minutes is prohibited within these designated zones. Passenger loading and unloading is also permitted in commercial loading spaces as long as it is active loading/unloading and does not exceed three minutes.

¹⁷ The commercial vehicle loading space supply within non-metered commercial vehicle loading zones was estimated using an average of 20 feet per space. The length of metered commercial vehicle loading spaces generally varies between 18 and 24 feet in length.

¹⁸ A bulb-in refers to an on-street recessed loading bay, also known as a cut-in.

¹⁹ The passenger loading/unloading space supply within passenger loading/unloading zones was estimated using an average of 20 feet per space.

TABLE 3.B-7. PARKING AND LOADING STUDY AREA ON-STREET COMMERCIAL LOADING SUPPLY AND MIDDAY OCCUPANCY

Parking and Loading Study Area Street ^a	Loading Supply ^{d,e}	Midday Occupancy ^f	
	Spaces	Spaces	%
12 th Street between Market and Mission streets ^b	4	3	75%
Gough Street between Market and Otis streets ^b	0	0	—
South Van Ness Avenue between Mission and 13 th streets ^b	2	1	50%
Otis Street between South Van Ness Avenue and Gough Street ^b	3	3	100%
Otis Street between Gough Street and Duboce Avenue	1	1	100%
Duboce Avenue between Valencia and Otis streets ^b	3	1	33%
13 th Street between Otis and Folsom streets ^b	2	1	50%
Fell Street between Van Ness Avenue and Market Street	4	3	75%
Franklin Street between Page and Oak streets	2	1	50%
Oak Street between Franklin Street and Van Ness Avenue	4	1	25%
Alleys affected by Hub Plan streetscape and street network improvements ^c	2	0	0%
Rest of parking and loading study area streets	53	40	75%
Total	80	55	69%

Source: Fehr & Peers/LCW Consulting, 2019.

^a. Parking and loading study area presented in **Figure 3.B-1**, p. 3.B-2.

^b. Streets where streetscape and street network improvements are proposed as part of the Hub Plan.

^c. Alleys where streetscape and street network improvements are proposed as part of the Hub Plan. These include all or a portion of Lily, Rose, Minna, Lafayette, Stevenson, Brady, Colton, Plum, and Jessie streets; Colusa Place; and Chase Court (see **Figure 2-3**, p. 2-8).

^d. Does not include the recessed commercial loading bay on the north side of Market Street between Van Ness Avenue and Franklin Street.

^e. Includes metered and non-metered commercial loading space supply. The commercial vehicle loading space supply within non-metered loading zones was estimated using an average of 20 feet per space.

^f. Midday period represents the hours between 12 p.m. and 2 p.m.

EMERGENCY ACCESS CONDITIONS

The existing roadway network within the transportation study area enables emergency vehicle access to all buildings within the transportation study area. Emergency vehicles typically use arterial roadways through the transportation study area when heading to and from an emergency and/or emergency facility. Arterial roadways allow emergency vehicles to travel at higher speeds and provide enough clearance space to permit other traffic to maneuver out of the path of the emergency vehicle and yield the right-of-way.²⁰ Although the

²⁰ Per the California Vehicle Code section 21806, all vehicles must yield the right-of-way to emergency vehicles and remain stopped until the emergency vehicle has passed.

turning radius and maneuverability is somewhat restricted on some roadways, including alleyways (such as Brady, Lily, Rose, and Colton streets within the transportation study area), emergency vehicles can still access these streets and buildings.

Several San Francisco Fire Department stations serve the Hub Plan area, including Station 36, located at 109 Oak Street, between Franklin and Gough streets. Station 36 is interconnected with adjacent traffic signals at Franklin and Gough streets to facilitate emergency vehicle access from the station in both directions (i.e., to travel eastbound against traffic flow on Oak Street to Gough Street or travel eastbound on Oak Street to Franklin Street). Other nearby fire stations include Station 3 at 1067 Post Street, north of the Hub Plan area; Station 5 at 1301 Turk Street, northwest of the Hub Plan area; Station 6 at 135 Sanchez Street, southwest of the Hub Plan area; and Station 7 at 2300 Folsom Street, south of the Hub Plan area.

The transportation study area is within three police districts, the Tenderloin District (station located at 301 Eddy Street), Northern District (station located at 1125 Fillmore Street), and Southern District (station located at 1251 Third Street).

BASELINE CONDITIONS

The analysis in California Environmental Quality Act (CEQA) documents typically presents existing and existing-plus-project scenarios to identify impacts by comparing conditions with the proposed project to existing conditions. However, in the transportation study area, several transportation infrastructure projects and land use development projects are under construction or were recently completed. Some are approved and funded and therefore expected to be under construction or completed by the time the proposed project (i.e., development under the Hub Plan, including the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street) is under construction. Because of these changing conditions, a modified or future baseline, different from the existing conditions, was determined to be appropriate for the analyses prepared in this section because an analysis based on existing conditions could be misleading to decision-makers and the public.

The baseline includes land use development projects that were under construction at the time when the NOP was published. Transportation infrastructure projects that were approved and funded, and therefore likely to be completed by the time the proposed project would be under construction, were also included as part of baseline condition. This future baseline year was determined to be 2020 because it aligns with the baseline analysis year of the SF-CHAMP model used in the transportation analysis. The projects included in the 2020 baseline condition will implement various transportation network changes. These include travel-lane reductions, new bicycle lanes, safety projects, streetscape projects that have been recently implemented (e.g., Upper Market Street Safety Project, Safer Market Street Project, signal timing changes on Market and Mission streets, which were completed prior to 2018), transportation projects that have been approved and funded or are under construction (e.g., Van Ness BRT/Van Ness Improvement

Project, Polk Street Streetscape Project), and land use development projects that will likely be completed by the 2020 baseline year (e.g., 1546–1564 Market Street Project, 1629 Market Street Project, 1699 Market Street Project, 1500 Mission Street Project, 150 Van Ness Avenue Project, and 22–24 Franklin Street Project).

The Safer Market Street Project focused on the section of Market Street between Third and Eighth streets and included turn restrictions, an extension of transit-only lanes, corner sidewalk extensions, daylighting, continental crosswalks, as well as other measures to enhance visibility for people walking, bicycling, and driving at intersections. Signal timing changes on Market and Mission streets within the transportation study area included changes to the signal cycle duration from 60 to 90 seconds, the addition of protected phases, and the provision of leading intervals at many intersections for people walking.

The Upper Market Street Safety Project included changes to the corridor's complex six-legged intersections, dedicated bike lane upgrades, and public realm improvements to enhance safety and comfort for people walking, bicycling, and driving.

The Van Ness BRT/Improvement Project will provide two travel lanes on Van Ness Avenue in each direction, separated by median transit-only lanes. Left turns from Van Ness Avenue will be limited to a few locations north of the transportation study area. Operational improvements will include adjusting traffic signals to give buses more green-light time at intersections and providing real-time bus arrival and departure information for passengers to allow them to manage their time more efficiently. Following completion of construction, bus service will be relocated to the median transit-only lanes, and the existing curbside bus stops will be discontinued.

The Polk Street Streetscape Project includes streetscape and safety improvements on the section of Polk Street between Union and McAllister streets. Safety improvements include leading intervals for people walking, daylighting at signalized and stop-controlled intersections, loading zone improvements, new accessible vehicular parking spaces, new shared lane markings, and new turn lanes.

The quantitative analyses of travel demand and transit travel times incorporate the baseline projects. In addition, 2020 baseline conditions consider the increases in transit, as well as the number of vehicles, people walking, and people bicycling, that are anticipated to occur as a result of growth by 2020, as projected by SF-CHAMP, including, but not limited to, the land use development projects that are likely to be completed by 2020, as mentioned above. Additional information on the use of the travel demand and transit operation models is provided in Appendix D.

REGULATORY FRAMEWORK

This section summarizes the plans and policies of the city and regional and state agencies that have policy and regulatory control within the Hub Plan area. There are no federal regulations that pertain to transportation impacts associated with the Hub Plan or the two individual development projects.

STATE REGULATIONS

CEQA SECTION 21099(B)(1) (SENATE BILL 743)

CEQA section 21099(b)(1) requires the Office of Planning and Research to develop revisions to the CEQA Guidelines, thereby establishing criteria for determining the significance of transportation impacts from projects that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” CEQA section 21099(b)(2) states that, upon certification of the revised guidelines for determining transportation impacts, pursuant to section 21099(b)(1), automobile delay, as described solely by level of service (LOS) or similar measures of vehicular capacity, or vehicular traffic congestion shall not be considered a significant impact on the environment under CEQA.

In January 2016, the Office of Planning and Research published for public review and comment its *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743* (proposed transportation impact guidelines), recommending that project transportation impacts be measured using a VMT metric.²¹ In January 2019, changes to the CEQA statutes and guidelines went into effect, including a new section 15064.3 that states that vehicle miles traveled is the most appropriate measure of transportation impacts, and includes updated criteria for analyzing transportation impacts.

CALTRANS CONSTRUCTION MANUAL

The California Department of Transportation (Caltrans) *Construction Manual* contains policies and procedures for construction personnel and construction contract administrators to follow when working on the State Highway System. The manual also identifies procedures for projects administered by a local agency that modify, maintain, or improve the State Highway System (e.g., construction within South Van Ness Avenue) so that construction is conducted efficiently and effectively. It requires local agencies to conform to Caltrans standards and practices, as defined in the manuals and guidance documents pertaining to policies and practices.

²¹ Office of Planning and Research, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA, Implementing Senate Bill 743* (Steinberg, 2013), January 20, 2016.

REGIONAL REGULATIONS

PLAN BAY AREA

Plan Bay Area 2040 is a state-mandated, integrated long-range transportation and land use plan. As required by Senate Bill 375, all metropolitan regions in California must complete a Sustainable Communities Strategy as part of a Regional Transportation Plan. This strategy integrates transportation, land use, and housing to meet greenhouse gas reduction targets set by the California Air Resources Board. The Hub Plan meets those requirements. In addition, the Hub Plan sets a roadmap for future transportation investments and identifies what it would take to accommodate expected growth. The Hub Plan neither funds specific transportation projects nor changes local land use policies.

In the Bay Area, the Metropolitan Transportation Commission and the Association of Bay Area Governments adopted the latest plan in 2017. To meet the greenhouse gas reduction targets, the Hub Plan identifies priority development areas. The agencies estimate approximately 77 percent of housing and 55 percent of job growth will occur in the Bay Area between 2010 and 2040. The project is located in Market-Octavia/Upper Market priority development area.

LOCAL REGULATIONS, PLANS, AND POLICIES

TRANSIT FIRST POLICY

In 1999, San Francisco voters amended the City Charter (article 8A, section 8A.115) to include the Transit First Policy, which was first articulated as a City priority policy by the board of supervisors in 1973. The Transit First Policy is a set of principles that underscore the City's commitment to have travel by transit, bicycle, and foot be given priority over use of the private automobile. These principles are embodied in the policies and objectives of the transportation element of the San Francisco General Plan. All City boards, commissions, and departments are required, by law, to implement the Transit First Policy's principles in conducting city affairs.

VISION ZERO POLICY

In 2014, the San Francisco Board of Supervisors adopted a resolution to implement an action plan to reduce traffic fatalities to zero by 2024 through engineering, education, and enforcement (resolution 91-14). Numerous San Francisco agencies responsible for the aforementioned aspects of the action plans adopted similar resolutions. In 2017, the board of supervisors amended the Transportation and Urban Design elements of the General Plan to implement Vision Zero (ordinance 175-17).

SAN FRANCISCO GENERAL PLAN

The transportation element of the San Francisco General Plan is composed of objectives and policies that relate to eight aspects of the citywide transportation system: general regional transportation, congestion management, vehicle circulation, transit, people walking, bicycles,

citywide vehicular parking, and goods management. The transportation element, which references San Francisco's Transit First Policy in its introduction, contains objectives and policies that are directly pertinent to consideration of the proposed project, including objectives related to encouraging transit use and changing signal timing to emphasize the role of transit, people walking, and people bicycling as parts of a balanced multimodal transportation system.

The San Francisco General Plan also includes the Market and Octavia Area Plan, which provides objectives and policies to guide land use development, to enhance urban space and urban form, and to improve the transportation network for all ways of travel.

SAN FRANCISCO REGULATIONS FOR WORKING IN SAN FRANCISCO STREETS

The San Francisco Regulations for Working in San Francisco Streets (SFMTA Blue Book), prepared and regularly updated by SFMTA under authority derived from the San Francisco Transportation Code, serves as a guide for contractors working in San Francisco streets. The manual establishes rules and guidance so that work can be done safely and with the least possible interference with people walking and bicycling, transit, and vehicular traffic. The manual also contains relevant general information, contact information, and procedures related to working in the public right-of-way when controlled by agencies other than SFMTA.

In addition to the regulations presented in the manual, all construction-related traffic control, warning, and guidance devices must conform to the *California Manual on Uniform Traffic Control Devices*. Furthermore, contractors are responsible for complying with all applicable city, state, and federal codes, rules, and regulations. The party responsible for setting up traffic controls during construction shall be held accountable and responsible if such controls do not meet the guidance and requirements established by the manual and any applicable state requirements.

PLANNING COMMISSION RESOLUTION 19579

In March 2016, the Planning Commission unanimously approved a resolution for adopting changes consistent with implementation of Senate Bill 743, as described above under CEQA section 21099(b)(1), including use of VMT as the metric for calculating transportation-related environmental impacts.

TRANSPORTATION SUSTAINABILITY FEE

The planning code requires certain new development projects to pay an updated fee, based on the size of the development, to the City (section 411A). The fee offsets a portion of the development projects' impacts on the transportation system. The City may use the fee only toward specific programs consisting of transit capital maintenance, local and regional transit service expansion and reliability, complete streets, and program administration.

TRANSPORTATION DEMAND MANAGEMENT PROGRAM

The planning code requires certain new development projects to incorporate “design features, incentives, and tools” to reduce VMT (section 169). Development projects must choose measures from a menu of options to develop an overall transportation demand management (TDM) plan. Some options overlap with requirements elsewhere in the planning code (e.g., bicycle parking, car-share parking). Each development project’s TDM plan requires routine monitoring and reporting to the San Francisco Planning Department (department) to demonstrate compliance.

BETTER STREETS PLAN, POLICY, AND REQUIREMENTS

In 2006, the San Francisco Board of Supervisors adopted the Better Streets Policy. Since then, the board has amended the policy several times, including in 2010 to reference the *Better Streets Plan*. The *Better Streets Plan* creates a unified set of standards, guidelines, and implementation strategies to govern how San Francisco designs, builds, and maintains its pedestrian environment. The planning code requires certain new development projects to make changes to the public right-of-way, such that it is consistent with the *Better Streets Plan* (section 138.1). The planning code requires most projects to plant and maintain street trees and some, larger projects to submit a streetscape plan that may require elements such as sidewalk widening, transit boarding islands, and medians.

OFF-STREET LOADING

The planning code requires certain new development projects to include off-street freight loading spaces (section 152.1). The planning code requirements for spaces depends on the size of the development projects. The planning requires certain dimensions of the spaces and allows for substituted service vehicle spaces (section 154(b)).

IMPACTS AND MITIGATION MEASURES

This section describes the impact analysis related to transportation and circulation for the Hub Plan and the individual development projects. It also describes the methods used to determine the impacts of the Hub Plan and the individual development projects, and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the discussion of each identified significant impact.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable

mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

SIGNIFICANCE CRITERIA

The criteria for determining the significance of impacts in this analysis are consistent with the environmental checklist in Appendix G of the CEQA Guidelines, as modified by the department.

For the purpose of this analysis, the bullet points below were used to determine whether implementing the Hub Plan and individual development projects would result in a significant impact on transportation and circulation. Implementation of the Hub Plan and individual development projects would have a significant effect on transportation and circulation if the project would:

- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines section 15064.3 subdivision (b);
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or
- Result in inadequate emergency access.

The department uses significance criteria to facilitate the transportation analysis and address the Appendix G checklist. The criteria are as follows:

- **Vehicle Miles Traveled**
 - The project would have a significant effect on the environment if it would cause substantial additional VMT.
 - The project would have a significant effect on the environment if it would substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow travel lanes) or by adding new roadways to the network.
- **Driving Hazards.** The project would have a significant effect on the environment if it would create potentially hazardous conditions for people driving.
- **Transit.** The project would have a significant effect on the environment if it would substantially delay transit or create potentially hazardous conditions for transit operators.

- **Walking/Accessibility.** The project would have a significant effect on the environment if it would create potentially hazardous conditions for people walking or interfere with accessibility for people walking to and from the project site and adjoining areas.
- **Bicycling.** The project would have a significant effect on the environment if it would create potentially hazardous conditions for people bicycling or interfere with accessibility for people bicycling to and from the project site and adjoining areas.
- **Loading.** The project would have a significant effect on the environment if it would result in a loading deficit and secondary effects that would create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay transit.
- **Vehicular Parking.** A project would have a significant effect on the environment if it would result in a substantial vehicular parking deficit and secondary effects that would create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or people bicycling; result in inadequate access for emergency vehicles; or substantially delay public transit.
- **Emergency Access.** A project would have a significant effect on the environment if it would result in inadequate emergency access.
- **Construction.** Construction of the project would have a significant effect on the environment if, in consideration of the setting, the project's temporary construction activities would require a substantially extended duration or intense activity, and the effects would create potentially hazardous conditions for people walking, bicycling, or driving or riding transit; substantially interfere with emergency access or accessibility for people walking or people bicycling; or substantially delay public transit.

APPROACH TO ANALYSIS

This section describes the methodology for analyzing transportation impacts and discusses the information considered in developing the travel demand forecasts used in the analyses for the Hub Plan and individual development projects. The impacts of the Hub Plan and individual development projects on the surrounding transportation network were analyzed using the Transportation Impact Analysis Guidelines updated in 2019²² and Planning Commission resolution 19579, which provide direction for analyzing transportation conditions and identifying the transportation impacts of a proposed project.

The effects of the proposed rezoning within the Hub Plan are analyzed in this EIR at a programmatic level; the proposed streetscape and street network improvements under the Hub Plan and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street are analyzed at a project level.

²² San Francisco Planning Department, *Transportation Impact Analysis Guidelines*, February 2019. Available online at <https://sfplanning.org/news/transportation-impact-analysis-guidelines-update>

ANALYSIS SCENARIOS AND PERIODS

The analysis of the Hub Plan and two individual development projects was conducted for 2020 baseline-plus-project and 2040 cumulative conditions. The 2020 baseline-plus-project condition assesses the near-term impacts of the Hub Plan and two individual development projects and is considered to be the CEQA baseline for purposes of transportation and circulation analysis, while the 2040 cumulative condition assesses the long-term impacts of the Hub Plan and two individual development projects in combination with other reasonably foreseeable development. The year 2020 was selected for the near-term impact analysis because it represents the nearest baseline year for which travel demand forecasts are available. The year 2040 was selected as the future analysis year because 2040 is the latest year for which future travel demand forecasts are available from the San Francisco County Transportation Authority's travel demand forecasting model.

Per the 2019 Transportation Impact Analysis Guidelines, the weekday p.m. peak hour is the standard analysis period for projects in San Francisco and therefore was analyzed for the Hub Plan and two individual development projects.

CONSTRUCTION IMPACTS METHODOLOGY

Potential short-term construction impacts were assessed qualitatively, based on preliminary construction information for the individual development projects at 30 Van Ness Avenue and 98 Franklin Street and general construction-related information for activities associated with other development projects and streetscape and street network improvements on sidewalks, in bicycle lanes, and/or in travel lanes in the Hub Plan area. The construction impact evaluation addresses issues related to the staging and duration of construction activities as well as roadway and/or sidewalk closures. It also evaluates the effects of construction activities on transit facilities and service, bicycle circulation, travel lanes, and people walking.

VMT ANALYSIS METHODOLOGY

Land Use Components

Area Plans. The analysis of VMT impacts for area plans compares the VMT per capita for conditions without and with implementation of the Hub Plan. If the VMT per capita with implementation of the Hub Plan are equal to or less than the VMT per capita for the Hub Plan area and the region based on the latest Sustainable Communities Strategy, then implementation of the area plan would not result in a significant VMT impact.

The analysis of VMT impacts considered VMT per capita with and without implementation of the Hub Plan, based on output from the SF-CHAMP model analyses conducted for the Hub Plan (a description of the SF-CHAMP model analyses is presented below under Project

Travel Demand Analysis, starting on p. 3.B-47). Consistency with the Sustainable Communities Strategy was determined based on the analysis conducted by the Metropolitan Transportation Commission for Plan Bay Area 2040, which is the region's Sustainable Communities Strategy.²³

Development Projects. The department uses the following quantitative thresholds of significance to determine whether the project would generate substantial additional VMT:

- For residential projects, if it exceeds the regional household VMT per capita minus 15 percent.
- For office projects, if it exceeds the regional VMT per employee minus 15 percent.
- For retail projects, if it exceeds the regional VMT per employee minus 15 percent.²⁴
- For mixed-use projects, each land use is evaluated independently, per the thresholds of significance described above.

The department uses VMT efficiency metrics (per capita or per employee) for thresholds of significance. VMT per capita reductions mean that individuals will, on average, travel less by automobile than previously, but, because the population will continue to grow, there may not be an overall reduction in the absolute number of miles driven.

As recommended by the Office of Planning and Research and included in the Planning Commission resolution that adopted the VMT metric and the thresholds of significance for transportation impact analysis in San Francisco²⁵, the department uses a map-based screening criterion to identify types and locations of land use projects that would not exceed these quantitative thresholds of significance. The San Francisco County Transportation Authority uses a model to present VMT for residential, office, and retail in San Francisco and the region, as described and shown under existing conditions. The department uses that data and associated maps to determine whether a project site's location is below the VMT quantitative threshold of significance. If a project is located in an area that has a low VMT, and it incorporates similar features to other developments in that area (i.e., density, mix of uses, transit accessibility), then

²³ Metropolitan Transportation Commission, *Plan Bay Area 2040 Draft EIR*, SCH #2016.052041, April 2017; Final EIR, July 2017; Addendum to the Final EIR, March 2018, <https://www.planbayarea.org/2040-plan/environmental-impact-report>.

²⁴ Retail travel is not explicitly captured in the SF-CHAMP modeling process, rather, there is a generic "other" purpose which includes retail shopping, medical appointments, visiting friends or family, and all other non-work, non-school tours. The retail efficiency metric captures all of the "other" purpose travel generated by Bay Area households. The denominator of employment (including retail; cultural, institutional, and educational; and medical employment; and number of households) represents the size, or attraction, of the zone for this type of "other" purpose travel.

²⁵ San Francisco Planning Department, *Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A*, March 3, 2016.

the project can be presumed to not have a VMT impact. Furthermore, also as recommended by Office of Planning and Research, as part of the City methodology and approach stated in the Planning Commission resolution, the department presumes residential, retail, and office projects, and projects that are a mix of these uses, proposed within 0.5 mile of an existing major transit stop (as defined by CEQA section 21064.3) or an existing stop along a high-quality transit corridor (as defined by CEQA section 21155) would not exceed these quantitative thresholds of significance. However, this presumption would not apply if the project would: (1) have a floor area ratio of less than 0.75; (2) include more parking for use by residents, customers, or employees of the project than required or allowed, without a conditional use; or (3) is inconsistent with the applicable Sustainable Communities Strategy.²⁶

The department applies the map-based and proximity to transit station screening criteria to the following land use types:

- Tourist Hotels, Student Housing, Single-Room-Occupancy Hotels, and Group Housing. Trips associated with these land uses typically function similarly to residential. Therefore, these land uses are treated as residential for screening and analysis.
- Childcare, K-12 Schools, Post-Secondary Institutional, Medical, and Production, Distribution, and Repair. Trips associated with these land uses typically function similarly to office. Although some of these uses may have some visitor/customer trips associated with them (e.g., childcare drop-off trips), those trips are often a side trip within a larger tour. For example, visitor/customer trips are influenced by the origin (e.g., home) and/or ultimate destination (e.g., work) of those tours. Therefore, these land uses are treated as office for screening and analysis.
- Grocery Stores, Local-Serving Entertainment Venues, Religious Institutions, Parks, and Athletic Clubs. Trips associated with these land uses typically function similar to retail. Therefore, they are treated as retail for screening and analysis.

Transportation Components

The department uses the following quantitative threshold of significance and screening criteria to determine whether transportation projects may substantially induce additional automobile travel: 2,075,220 VMT per year. This threshold is based on the fair-share VMT allocated to transportation projects required to achieve California's long-term greenhouse gas emissions reduction goal of 40 percent below 1990 levels by 2030.²⁷

²⁶ The department considers a project to be inconsistent with the Sustainable Communities Strategy if the project is located outside of areas contemplated for development in the Sustainable Communities Strategy.

²⁷ San Francisco Planning Department, *Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A*, March 3, 2016, p.13.

The department uses a list of transportation components that would not exceed this quantitative threshold of significance. If a project fits within the general types of projects (including combinations of types) listed below, then the department presumes that VMT impacts would be less than significant:

- Active Transportation, Rightsizing (aka Road Diet), and Transit Projects:
 - Reduction in the number of through lanes.
 - Infrastructure projects, including safety and accessibility improvements, for people walking and bicycling.
 - Installation or reconfiguration of vehicular traffic calming devices.
 - Creation of new or conversion of existing mixed-flow travel lanes (including vehicle ramps) to transit-only lanes.
- Other Minor Transportation Projects:
 - Rehabilitation, maintenance, replacement, and repair projects designed to improve the condition of existing transportation assets (e.g., highways, roadways, bridges, culverts, tunnels, transit systems, facilities for people walking or bicycling) and not add additional motor vehicle capacity.
 - Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left-, right-, and U-turn pockets or emergency breakdown lanes that are not used as through lanes.
 - Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority features.
 - Conversion of existing general purpose lanes (including vehicle ramps) to managed lanes (e.g., high-occupancy vehicle, high-occupancy toll, or truck lanes).
 - Timing of signals to optimize the flow of vehicles and people walking or bicycling on local or collector streets.
 - Addition of transportation wayfinding signage.
 - Conversion of streets from one-way to two-way operations, with no net increase in the number of vehicle travel lanes.
 - Removal of off-street or on-street vehicular parking spaces.
 - Adoption, removal, or modification of on-street vehicular parking or loading restrictions, including meters, time limits, accessible spaces, and referential/reserved vehicular parking permit programs.

DRIVING HAZARDS ANALYSIS METHODOLOGY

In assessing driving hazards, the Hub Plan's and individual development project's changes to the transportation network were reviewed to determine whether they would obstruct, hinder, or impair reasonable and safe views by drivers traveling on the same street or restrict the ability of a driver to stop the motor vehicle short of a collision.

TRANSIT ANALYSIS METHODOLOGY

The department uses a quantitative threshold of significance and qualitative criteria to determine whether subsequent development under the Hub Plan would substantially delay transit.²⁸ For individual Muni routes with headways less than eight minutes, the department may use a threshold of significance less than four minutes. For individual surface lines operated by regional agencies, if the project would result in transit delay greater than one-half headway, then it might result in a significant impact. The department considers the following qualitative criteria for determining whether that delay would result in significant impacts due to a substantial number of people riding transit switching to riding in private or for-hire vehicles: transit service headways and ridership, origins and destinations of trips, availability of other transit and ways of travel, and competitiveness with private vehicles.

The department has determined that a project that generates fewer than 300 inbound vehicle trips during the peak hour would not result in a delay to transit. If the proposed project would generate more than 300 inbound vehicle trips, then a quantitative transit operations analysis would be prepared to determine whether implementation of the project would increase transit travel times and substantially delay transit. These additional vehicle trips would affect only surface transit operations (e.g., buses, historic streetcars, light-rail vehicles operating at grade) near the project site and would not affect Muni Metro subway, BART, or WETA ferry operations. Therefore, only impacts on surface transit operations are considered.

Impacts of subsequent development under the Hub Plan on transit operations were measured in terms of increases to transit travel times. Weekday p.m. peak-hour transit travel times were estimated for bus routes that travel in mixed-flow travel lanes for more than two blocks within or adjacent to the Hub Plan area under three analysis scenarios: 2020 baseline, 2020 baseline-plus-project, and 2040 cumulative conditions. These routes consist of Muni 5 Fulton, 5R Fulton Rapid, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14R Mission Rapid, 19 Polk, and 21 Hayes. The analysis segments include all stops for these routes within the transportation study area.

²⁸ Per the 2019 Transportation Impact Analysis Guidelines, transit capacity is no longer considered in assessing the environmental impacts of a project on local or regional public transit operations, consistent with state guidance that calls for not treating the addition of new users as an adverse impact and reflecting funding sources and policies that encourage additional ridership.

The transit travel time analysis was conducted using the Transit Cooperative Research Program (TCRP) *Report 165: Transit Capacity and Quality of Service Manual* methodology presented in Chapter 6, *Bus Transit Capacity*, of the report.²⁹ The analysis used the TCRP spreadsheet tool provided as part of TCRP Report 165. The transit travel time methodology includes several steps, depending on the type of bus operations and the availability of data. The application of this methodology to the analysis involved three sequential steps:

- Step 1: Dwell Time at Stops
- Step 2: Bus Stop Capacity
- Step 3: Bus Travel Time

The outputs from the third step were used to determine transit travel times along each study segment for each individual route by direction of travel.

- **Step 1: Dwell Time at Stops** – This calculation estimates the average dwell time (the time when a bus is stopped to load and unload passengers at a transit stop) at each stop, based on passenger boardings and alightings,³⁰ fare collection methods, and transit vehicle characteristics. Passenger boardings and alightings at the stop level were calculated from the data in the most recent SFMTA Passenger Activity Report (fall 2015) to provide an existing baseline. Future 2020 and 2040 boardings and alightings for each stop and route were calculated by multiplying the existing baseline by the overall percentage increase in transit ridership in the transportation study area under each scenario, as derived from the SF-CHAMP model runs.³¹

The dwell time calculations assume all-door boarding, level boarding, and a “smart card” as the most common payment type, with approximately 10 percent of passengers who board using the fare box.³² Standees were assumed to be on board transit vehicles traveling in the peak direction (during the weekday p.m. peak hour, the peak direction of travel is outbound from downtown) but not in the non-peak direction. The number of doors was based on the vehicle types listed in the SFMTA Bus Fleet Management Plan, 2017–2030 (Appendix D).³³ The TCRP Report 165 default door opening and closing time of four seconds was used. The number of loading areas, defined as the number of buses that can load at a stop simultaneously, was identified for each stop.

²⁹ Transportation Research Board, *TCRP Report 165: Transit Capacity and Quality of Service Manual*, third edition, 2013, <http://www.trb.org/Main/Blurbs/169437.aspx>.

³⁰ Passenger boardings and alightings refer to passengers getting on and off a bus, respectively.

³¹ San Francisco County Transportation Authority, July 2018.

³² SFMTA, *All-Door Boarding Evaluation, Final Report*, December 2014, Table 1: Principal Findings (see table in Appendix B).

³³ SFMTA, Fleet Management Plan.

- Step 2: Bus Stop Capacity** – This calculation estimates the capacity of each individual stop in terms of number of buses per hour that can be served and considers delay due to vehicular traffic congestion as well as re-entry delay. The overall capacity of a particular route segment is then determined using the capacity of the stop with the lowest capacity. Intersection vehicular traffic volumes and traffic signal timing data are used as inputs to provide estimates of vehicular traffic congestion delays and traffic signal delays. Vehicular traffic volume inputs were obtained from the SF-CHAMP model runs conducted for the Hub Plan.³⁴ The signal timing inputs are based on current signal timing data, where applicable, and information about future timing changes provided by SFMTA. Specifically, the SFMTA has indicated that, as of 2020–2021, all intersections north of Market Street will have 75-second cycle lengths, all intersections south of Market Street will have 90-second cycle lengths, and nearly all signalized crossings for people walking will have 4-second leading intervals for people walking.^{35,36} Other inputs into the bus stop capacity calculation include the signal cycle length, green-per-cycle (g/c) ratio, and interaction of people walking and vehicles.

Bus stops were identified as being off-line or online³⁷ and far-sided or near-sided.³⁸ All stops were assumed to operate with random arrival patterns (not platooned), with linear transit loading areas (not sawtooth)³⁹ and coded as being in a metropolitan central business district. The bus lane type adjacent to each stop was identified using TCRP Report 165 definitions.⁴⁰ The TCRP Report 165 default values for the coefficient of variation for dwell times (0.60) and failure rate⁴¹ (15 percent) were used.

³⁴ *Technical Memorandum – The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR – Estimation of Project Travel Demand*, January 2019 (see Appendix D).

³⁵ Email from James Shahamiri of SFMTA, dated August 16, 2018.

³⁶ A leading interval for people walking is a signal phase at signalized intersections that typically gives people walking a three- to five-second head start when entering an intersection with a corresponding green signal in the same direction of travel. For drivers, the leading intervals for people walking make it easier to see people walking in the intersection and reinforces their right-of-way over turning vehicles.

³⁷ Off-line bus stops require the bus to leave the travel lane in which it was traveling, be it a transit-only lane or mixed-flow lane, to pick up and drop off passengers. Bus stops located in the vehicle parking lane are examples of an offline stop. Online stops allow a bus to stop within the travel lane in which it was traveling to pick up and drop off passengers. Stops at transit boarding islands are considered online stops.

³⁸ Far-side transit stops are stops located at the second or farthest side of the intersection after a transit vehicle passes through the intersection. Near-side stops are stops located at the first or nearest side of the intersection before a transit vehicle passes through the intersection.

³⁹ Linear loading areas are positioned along a curb parallel to the travel lanes while sawtooth loading areas are positioned at a 45-degree angle to the travel lanes. Sawtooth loading areas are by definition off line while linear loading areas can be either on line or off line.

⁴⁰ Type 1 = buses have no use of the adjacent lane; Type 2 = buses may move into the adjacent lane, traffic permitting; Type 3 = buses have full use of adjacent lane.

⁴¹ Failure rate is the percentage of buses that arrive at the bus stop to find all available loading areas already occupied.

- **Step 3: Bus Travel Time** – This calculation estimates average bus speed for a route segment by direction, then converts it to bus travel time. The calculation uses the dwell time and capacity information from steps 1 and 2 as inputs as well as additional data on route operations, such as the frequency of buses per hour,⁴² number of bus stops per mile, traffic signal pattern,⁴³ and bus running speed (20 mph).⁴⁴ The TCRP Report 165 default bus acceleration rate of 3.4 feet/second² and deceleration rate of 4.0 feet/second² were used.

Subsequent development under the Hub Plan would have a significant impact if it would increase existing transit travel times during the peak hour on a route so that additional transit vehicles would be required to maintain the existing or planned headways. This was assumed to be the case if a subsequent development's increase in travel time on a particular route in a particular direction would be greater than or equal to four minutes, or half of the route headway, whichever is less, as determined by SFMTA's 2030 Fleet Plan for future headways (see Appendix D). If it was determined that subsequent development under the Hub Plan would have a significant project-specific travel-time impact under baseline-plus-project conditions and significant cumulative impacts were identified, then subsequent development under the Hub Plan would also contribute substantially to significant cumulative impacts.

A qualitative assessment was conducted to determine whether the individual development projects and the Hub Plan streetscape and street network improvements would create potentially hazardous conditions for public transit operators. The qualitative assessment included a review of the design of the project features that would affect the transportation network, the number of vehicles added to various movements near the project, and the travel lanes where transit vehicles operate.

PEOPLE WALKING/ACCESSIBILITY ANALYSIS METHODOLOGY

Walking/accessibility conditions were assessed qualitatively. The qualitative assessment considered safety and right-of-way issues; potential worsening of existing or creation of new safety hazards; conflicts with bicycles, transit, and vehicles; and whether the project would interfere with the accessibility of people walking within the transportation study area or adjoining areas.

⁴² This was based on the combined hourly frequency of all buses that stop at the bus stop with the lowest bus capacity, as determined in Step 2: Bus Stop Capacity.

⁴³ Options include typical (bus stops at every signalized intersection along the route), timed for buses (transit signal priority), or more frequent stops (signalized intersections between designated bus stops).

⁴⁴ SFMTA indicated a running speed of 20 mph should be assumed as the maximum possible speed in the transportation study area during the p.m. peak-hour analysis period.

BICYCLE ANALYSIS METHODOLOGY

Bicycle conditions related to the Hub Plan area were assessed qualitatively, including bicycle routes, safety and right-of-way issues, potential worsening of existing or creation of new safety hazards, conflicts with vehicles and commercial vehicle loading activities, and whether the project would interfere with the accessibility of people bicycling within the transportation study area or in adjoining areas.

LOADING ANALYSIS METHODOLOGY

The commercial and passenger loading analysis was conducted by identifying changes to the on-street curb loading and vehicular parking regulations on streets within the parking and loading study area and the on-street supply of loading spaces that would be removed or added with implementation of the Hub Plan and individual development projects. The Hub Plan and two individual development projects would not result in an increase in commercial vehicle or passenger loading demand (including demand from taxis, transportation network companies, and other passenger loading) but, instead, could displace some existing demand to other locations. The analysis assesses the potential for existing demand to be met by other convenient loading spaces, either existing or relocated. If that demand is not met, the analysis assesses whether potentially hazardous conditions or significant delays that would affect vehicular traffic, transit, people bicycling, or people walking could occur.

VEHICULAR PARKING ANALYSIS METHODOLOGY

Vehicular parking conditions are not static because vehicular parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of vehicular parking spaces (or lack thereof) is not a permanent physical condition but, rather, a condition that changes over time as people change their ways and patterns of travel. Although vehicular parking conditions change over time, a substantial deficit in vehicular parking caused by a project that creates hazardous conditions or significant delays for vehicular traffic, transit, people bicycling, or people walking could adversely affect the physical environment. Whether a deficit in vehicular parking creates such conditions depends on the magnitude of the shortfall and the ability of drivers to change travel patterns or switch to other ways of travel. If a substantial deficit in vehicular parking caused by a project creates hazardous conditions or significant delays in travel, such a condition also could result in secondary physical environmental impacts (e.g., air quality or noise impacts caused by congestion), depending on the project and its setting.

The vehicular parking assessment was conducted by applying the department's parking analysis screening criteria checklist to determine whether the Hub Plan and two individual development projects would result in a substantial vehicular parking deficit. According to the parking analysis screening criteria checklist, if a land use project is located within the department's map-based screening area developed as part of the VMT analysis, and/or a transportation infrastructure project qualifies as an active transportation project or other minor

transportation project, the project would not result in a vehicular parking deficit. For projects that do not meet the criteria and have a vehicular parking deficit of more than 600 spaces, then a substantial vehicular parking deficit would occur, and a vehicular parking analysis would be required to assess whether the secondary impact of the vehicular parking deficit would create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; result in inadequate access for emergency vehicles; or substantially delay public transit.

In situations where a vehicular parking deficit is considered substantial, in addition to alternate ways of travel, potentially hazardous conditions related to the vehicular parking loss and, more specifically, the increased vehicular traffic circling the area were considered in determining whether a substantial hazard related to the vehicular parking deficit of the project could occur such as double vehicular parking in a bicycle lane, a mixed-flow lane, or a transit-only lane or whether vehicles would cause or substantially increase instances of sidewalks and/or driveways being blocked as drivers attempt to locate vehicular parking.

EMERGENCY ACCESS ANALYSIS METHODOLOGY

Potential impacts on emergency access were assessed qualitatively. Specifically, the analysis assessed whether the proposed streetscape and street network improvements and/or travel demand associated with the Hub Plan and two individual development projects would impair, hinder, or preclude adequate emergency vehicle access.

PROJECT TRAVEL DEMAND ANALYSIS

Travel demand analysis was conducted for the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Travel demand refers to new person trips⁴⁵ by additional residents, employees, and visitors using the various ways of travel (e.g., by transit, walking, bicycling, automobile) that would be generated by the new land uses projected to be developed under the Hub Plan and individual development projects. The memorandum containing the detailed methodology and information used to calculate the project travel demand is included in Appendix D.⁴⁶

This section summarizes the information and analysis contained in the travel demand memorandum and presents estimates of project-generated person trips by various ways of travel as well as the number of project-generated vehicle trips. In addition, for the individual development projects, this section presents estimates of commercial and passenger vehicle loading demand and the associated demand for loading spaces to accommodate the demand.

⁴⁵ A person trip is a trip made by one person by any means of transportation (vehicle, transit, walking, etc.).

⁴⁶ *The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, Hub Housing Sustainability District EIR Estimation of Project Travel Demand, Final Technical Memorandum*, January 2019. Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV (see Appendix D).

The Hub Plan

Subsequent development under the Hub Plan is projected to result in a net increase in the number of residential units in the Hub Plan area (i.e., 8,100 additional units). The travel demand analysis for the Hub Plan assumes full buildout of the projected land uses. The estimation of travel demand associated with the Hub Plan's projected change in the number of residential units and jobs, as well as changes in travel patterns associated with the Hub Plan's proposed streetscape and street network improvements, was based on output from SF-CHAMP model.

Table 3.B-8 summarizes the increase in the number of person trips and vehicle trips during the p.m. peak hour generated by subsequent development under the Hub Plan for both 2020 baseline and 2040 cumulative conditions. As shown in **Table 3.B-8**, during the weekday p.m. peak hour, development under the Hub Plan would generate about 21,900 new person trips, a 44 percent increase in the number of trips generated by existing land uses in the Hub Plan area. Of the total increase in person trips during the weekday p.m. peak hour, 30 percent would be by automobile, 18 percent by transit, and 52 percent by walking, bicycling, and other non-motorized ways.

About 93 percent of the new p.m. peak-hour person trips would be to and from areas within the city, with the greatest proportion occurring to and from the downtown/North Beach neighborhood. About 3 percent of all new weekday p.m. peak-hour trips would be to and from the East Bay, 3 percent to and from the South Bay, and less than 1 percent to and from the North Bay.

Although proposed streetscape and street network improvements under the Hub Plan would not generate vehicle trips, the removal of one travel lane on a 400-foot-long segment of Duboce Street would redistribute vehicle trips along the network. These redistributed vehicle trips were considered across all transportation analysis topics.

30 Van Ness Avenue Project

Travel demand estimates for the 30 Van Ness Project were based on the methodology and information contained in the 2019 Transportation Impact Analysis Guidelines.

The proposed 30 Van Ness Avenue Project consists of 21,000 square feet of retail space, up to 350,000 square feet of office space, and up to 610 residential units. The site currently contains 13,840 square feet of retail space, 184,102 square feet of office space, and 42 vehicular parking spaces. To provide a conservative assessment of project impacts, existing person and vehicle trips to and from the site were not subtracted from the trips that would be generated by the new uses.

TABLE 3.B-8. SUMMARY OF HUB PLAN AREA WEEKDAY DAILY AND P.M. PEAK-HOUR TRAVEL DEMAND BY WAY OF TRAVEL—2020 BASELINE AND 2040 CUMULATIVE CONDITIONS

Analysis Period/Analysis Scenario	Person Trips by Way of Travel				Vehicle Trips
	Auto	Transit	Non-motorized ^b	Total	
2020 Baseline Conditions					
Daily					
2020 baseline no project	92,093	40,129	87,654	219,875	80,209
2020 baseline plus project ^a	121,686	54,740	134,416	310,841	103,190
<i>Change from 2020 baseline no project^c</i>	29,593	14,611	46,762	90,966	22,981
<i>Percent change from 2020 baseline no project</i>	32.1%	36.4%	53.3%	41.4%	28.7%
P.M. Peak Hour					
2020 baseline no project	18,333	11,423	19,575	49,331	15,529
2020 baseline plus project ^a	24,826	15,360	31,058	71,243	20,438
<i>Change from 2020 baseline no project^c</i>	6,493	3,937	11,483	21,912	4,909
<i>Percent change from 2020 baseline no project</i>	35.4%	34.5%	58.7%	44.4%	31.6%
2040 Cumulative Conditions^d					
Daily	151,196	63,601	156,142	370,939	125,090
P.M. Peak Hour	31,258	17,972	36,127	85,357	24,968

Source: Technical Memorandum – The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR – Estimation of Project Travel Demand, January 2019 (see Appendix D).

^a Baseline-plus-project conditions include development under the Hub Plan, including the individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

^b Non-motorized includes walking, bicycle, and other non-motorized ways (e.g., skateboards, scooters).

^c Totals may not sum because of rounding.

^d The 2040 cumulative conditions include implementation of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

Table 3.B-9 summarizes the 30 Van Ness Avenue Project’s travel demand by ways of travel on a weekday daily basis and under p.m. peak-hour conditions. The proposed 30 Van Ness Avenue Project would generate approximately 12,280 new person trips on a weekday daily basis. During the weekday p.m. peak hour, the 30 Van Ness Avenue Project would generate about 1,097 new person trips and 182 new vehicle trips (58 inbound and 124 outbound). About 24 percent of the p.m. peak-hour person trips would be by automobile (including transportation network company vehicles and taxis), 28 percent by transit, and 48 percent by other ways of travel, including walking and bicycling.

TABLE 3.B-9. 30 VAN NESS AVENUE PROJECT WEEKDAY DAILY AND P.M. PEAK-HOUR TRAVEL DEMAND BY WAY OF TRAVEL

Analysis Period	Person Trips by Way of Travel					Vehicle Trips ^{a,b}
	Auto	Transit	Walk	Bicycle	Total	
Daily	2,986	3,418	5,448	427	12,280	2,080
P.M. Peak Hour	266	305	487	38	1,097	182

Source: *Technical Memorandum – The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR – Estimation of Project Travel Demand*, January 2019 (see Appendix D).

^a. Transportation network company (TNC) vehicles (e.g., Uber and Lyft) and taxi trips are included in vehicle trips and automobile person trips.

^b. The 30 Van Ness Avenue Project would include at least 350 residential units but possibly up to 610 units. As a conservative analysis, the higher 610-unit count was used in the travel demand analysis.

During the p.m. peak hour, the majority of the project-generated trips would be within the city. During the p.m. peak hour, about 42 percent of the transit trips and 31 percent of the vehicle trips would be to and from the North Bay, South Bay, and East Bay.

The 30 Van Ness Avenue Project would generate approximately 141 delivery-vehicle/service-vehicle trips per day. This corresponds to a demand for eight freight loading spaces during the peak hour of loading activity.⁴⁷ The 30 Van Ness Avenue Project would also generate approximately 110 passenger loading instances (including demand from taxis, transportation network companies, and other passenger loading) during the weekday p.m. peak hour, 55 of which would occur during the peak 15 minutes of the peak hour. This corresponds to a demand for four passenger loading spaces at the project site.⁴⁸

98 Franklin Street Project

Similar to the 30 Van Ness Avenue Project, the estimation of travel demand for the 98 Franklin Street Project was based on the methodology and information contained in the 2019 Transportation Impact Analysis Guidelines.

The 98 Franklin Street Project consists of a residential tower with 345 dwelling units above a five-story podium hosting a high school and 3,100 square feet of retail. The high school would accommodate the 380 existing students who would be relocated from the French-American International School’s 150 Oak Street site (approximately 200 feet west of the project site) and increase student enrollment by 60 (to a total of 440 students). The 98 Franklin Street Project would also result in the addition of up to five staff members, for a total of 65 staff members at the high school. Because the travel demand associated with the 380 existing students is

⁴⁷ Freight loading demand calculated using Table 3 from the Appendix F in the 2019 Transportation Impact Analysis Guidelines. See Appendix D for additional details.

⁴⁸ Passenger loading demand was calculated using the passenger loading methodology for taxi/TNC and pick-up/drop-off vehicle trip demand in Appendix F of the 2019 Transportation Impact Analysis Guidelines. See Appendix D for additional details.

accounted for under existing conditions, the travel demand analysis for the school was estimated for the net new increase in students and employees (i.e., 60 additional students and five additional employees). The site currently contains a vehicular parking lot with 100 spaces; however, as a conservative assessment of project impacts, the existing person and vehicle trips to and from the site were not subtracted from the trips that would be generated by the new uses. These trips may continue to occur near the project site.

The 98 Franklin Street Project would generate approximately 2,674 person trips on a weekday daily basis (see **Table 3.B-10**). During the p.m. peak hour, the project would generate approximately 248 new person trips and approximately 49 new vehicle trips (29 inbound and 20 outbound). About 30 percent of the p.m. peak-hour person trips would be by automobile (including transportation network company vehicles and taxis), 29 percent by transit, and 41 percent by other ways of travel (including walking and bicycling).

During the p.m. peak hour, the majority of the new project-generated trips would be within the city. During the p.m. peak hour, about 12 percent of the transit trips and 8 percent of the vehicle trips would be to and from the North Bay, South Bay, and East Bay.

TABLE 3.B-10. 98 FRANKLIN STREET PROJECT WEEKDAY DAILY AND P.M. PEAK-HOUR TRAVEL DEMAND BY WAY OF TRAVEL

Analysis Period	Person Trips by Way of Travel					Vehicle Trips ^{a b}
	Auto	Transit	Walk	Bicycle	Total	
Daily	769	773	1,050	82	2,674	543
P.M. Peak Hour	75	71	95	7	248	49

Source: *Technical Memorandum – The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR – Estimation of Project Travel Demand*, January 2019 (see Appendix D).

^a. Transportation network company (TNC) vehicles (e.g., Uber and Lyft) and taxi trips are included in vehicle trips and automobile person trips.

^b. Represents a net increase of 60 students and five staff members at the French-American International School; 32% of students and 50% of the staff members are expected to leave school during the p.m. peak hour.

The 98 Franklin Street Project would generate about six delivery-vehicle/service-vehicle trips per day. This corresponds to demand for one truck loading space during the peak hour of loading activity.⁴⁹ The 98 Franklin Street Project would also generate approximately 23 passenger loading instances (including demand from taxis, transportation network companies, and other passenger loading) during the weekday p.m. peak hour, 12 of which would occur

⁴⁹ Freight loading demand calculated using Table 3 from the Appendix F in the 2019 Transportation Impact Analysis Guidelines. See Appendix D for additional details.

during the peak 15 minutes of the peak hour.⁵⁰ This corresponds to a demand for one passenger loading space at the project site. This passenger loading does not include loading associated with school pickup or drop-off because the French-American International School would continue to direct families to conduct pickup and drop-off activities in their existing loading zone at 150 Oak Street.

CUMULATIVE IMPACTS METHODOLOGY

The estimation of travel demand forecasts used in the analysis of 2040 cumulative conditions was based on projected land use development and transportation network changes included in the San Francisco SF-CHAMP travel demand model, as described below. This represents a hybrid of the list-based and projections approach to cumulative modeling. The growth projections are based on population and employment assumptions developed by the Association of Bay Area Governments and account for the cumulative development projects described in **Table 3-2**, p. 3-17, as well as development under the Hub Plan and individual development projects at 30 Van Ness Avenue and 98 Franklin Street. In addition, the 2040 cumulative analysis assumes completion of certain planned and reasonably foreseeable transportation network changes, such as those listed below that could affect circulation in the transportation study area. These are also described in **Table 3-2**, p. 3-17, and include, but are not limited to:

- Better Market Street Project
- Civic Center Public Realm Plan⁵¹
- Muni Forward Transit Infrastructure Project and Service Improvements
- Central SoMa Plan Street Network Changes
- Western SoMa Community Plan Street Network Changes
- San Francisco Bicycle Plan (2009)
- San Francisco Bicycle Strategy 2013–2018
- Sixth Street Pedestrian Safety Project
- Seventh Street Road Diet Project
- Geary BRT Project
- Central Subway Project

⁵⁰ Passenger loading demand was calculated using the passenger loading methodology for taxi/TNC and pick-up/drop-off vehicle trip demand in Appendix F of the 2019 Transportation Impact Analysis Guidelines. See Appendix D for additional details.

⁵¹ The Civic Center Plan is currently under design refinement and review. The Complete Street alternative for Polk Street, which assumes two southbound travel lanes and one northbound travel lane on Polk Street south of Grove Street, and two southbound lanes south of Grover Street was assumed in the cumulative analysis. <https://civiccentersf.org/design-options/polk-street-design/>.

The Better Market Street Project would implement various transportation improvements on a 2.2-mile segment of Market Street between Steuart Street and Octavia Boulevard. The Better Market Street Project EIR⁵² analyzed a proposed project as well as a Western Variant that seeks additional improvements on the 0.6-mile section of Market Street between Octavia Boulevard and a point approximately 300 feet east of the intersection of Hayes and Market streets, which is within the Hub Plan transportation study area. The Western Variant includes additional improvements related to pedestrian and bicyclist safety, comfort, and mobility through additional reductions in conflicts between different ways of travel. Because the Western Variant includes changes within the Hub Plan area, both the proposed project and Western Variant were considered in the cumulative impact analysis.

2040 Cumulative Vehicle Forecasts

Future 2040 cumulative vehicular traffic volume forecasts for use in the operational transit travel-time analysis described above were developed using the City's SF-CHAMP travel demand model. The SF-CHAMP model also provides forecasts of vehicular traffic on regional freeways, major arterials, and the transportation study area roadway network, considering the available roadway capacity, origins and destinations of trips, and travel speeds. The 2040 cumulative model analysis incorporates land use development projections as well as planned transportation network projects.

The 2040 cumulative vehicular traffic volumes reflect future land use growth, including that occurring with implementation of the Hub Plan as well as transportation projects (e.g., Hub Plan streetscape and street network improvements, including diversions of vehicles from one street to another or shifts in vehicle travel from inside the transportation study area to outside the transportation study area). In general, weekday p.m. peak-hour traffic volumes at the study intersections are projected to increase between 2020 baseline and 2040 cumulative conditions generally by 0 to 30 percent and vary by street. The projected growth in vehicular traffic volumes is slightly higher on a percentage basis on the north-south streets in the western half of the transportation study area than in the eastern half. This generally reflects the development projects that would result from implementation of the Hub Plan. On some streets, such as Mission and Otis streets in the western half of the transportation study area, vehicular traffic volumes would decrease somewhat with implementation of transit-only lanes, removal of mixed-flow travel lanes, and vehicle turn restrictions.

⁵² San Francisco Planning Department, Better Market Street Project EIR, February 2019, <https://sfplanning.org/project/better-market-street-environmental-review-process>.

IMPACT EVALUATION

Impact TR-1. The Hub Plan would require an extended duration for the construction period and intense construction activity, the secondary effects of which could create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit. (Significant and Unavoidable with Mitigation)

In general, the analysis of construction impacts is specific to individual projects. It includes a discussion of temporary roadway and sidewalk closures, relocation of bus stops, effects on roadway circulation due to construction trucks, and the increase in vehicle trips, transit trips, and vehicular parking demand associated with construction workers. It should be noted that construction-related transportation impacts associated with individual development, open space, or transportation projects are temporary and generally short term (e.g., typically between two and three years) and conducted in accordance with City requirements, described below. Therefore, they do not substantially affect conditions or circulation in the area for transit, people walking, or people bicycling. The proposed rezoning would allow for additional height at up to 18 sites within the Hub Plan area. Furthermore, the construction of subsequent development projects under the Hub Plan could occur at multiple sites at the same time, using the same access routes to and from the sites.

To the extent that the construction of several development projects occurs simultaneously, and within proximity to each other, there could be detours and delays for vehicles, including transit vehicles, as well as people bicycling. Therefore, construction-related transportation impacts would occur. In addition, construction on these sites could overlap with construction of the Hub Plan streetscape and street network improvements. If construction overlaps substantially between nearby development projects and the streetscape and street network projects, there is the potential for substantial interference with circulation and accessibility. Therefore, construction-related transportation impacts could occur during the period of overlap.

Construction for the proposed sidewalk widening and bulb-outs and the creation of a boulevard with medians, traffic and median islands, raised crosswalks and intersections, and special paving would require, to varying degrees, depending on the project, demolition of existing sidewalks, curbs, and concrete gutters and excavation to provide foundations for the new features. Traffic signals and related hardware would also require excavation. Implementation of the bikeway in both directions on 13th Street between Folsom and Mission streets and on Duboce Avenue between Mission and Valencia streets, which would involve the demarcation of lanes, would require temporary travel-lane closures. Bikeways are often striped on weekends or non-peak weekday times when vehicular traffic volumes are lower on the affected roadway. The widening of sidewalks along South Van Ness Avenue, 12th Street, Gough Street, and Otis Street and at the intersection of South Van Ness Avenue/Mission

Street/Otis Street/12th Street, as well as changes to alleys, would occur gradually as development occurs on these streets and/or as funding becomes available for implementation by the City. The duration of the Hub Plan streetscape and street network projects would vary, depending on the type of project and the extent.

Prior to construction of subsequent developments or street infrastructure projects, as part of the building permit process, the project sponsor and construction contractor(s) would be required to meet with San Francisco Public Works (public works) and SFMTA staff members to develop and review truck routing plans for the disposal of excavated materials, material delivery and storage, as well as staging for construction vehicles. The construction contractor would be required to adhere to SFMTA Blue Book regulations, including those regarding sidewalk and lane closures, and meet with SFMTA staff members to determine if any special traffic permits would be required. Prior to construction, the project contractor would coordinate with Muni's Street Operations and Special Events Office to coordinate construction activities and avoid impacts on transit operations. In addition to the regulations in the SFMTA Blue Book, the contractor would be responsible for complying with all city, state, and federal codes, rules, and regulations.

In general, construction-related activities typically occur Monday through Friday between 7 a.m. and 7 p.m., with limited construction activities on weekends (on an as-needed basis). Construction staging typically occurs within project sites and from the adjacent sidewalks. These sidewalks along site frontages are usually closed for the duration of construction; temporary walkways for people walking are constructed in adjacent vehicular parking lanes, as needed. Temporary travel-lane closures are required to be coordinated with the City to reduce impacts on local traffic.

During a project's construction period, temporary and intermittent traffic and transit impacts may result from truck movements to and from project sites. Truck movements during periods of peak traffic flow would have greater potential to create conflicts than truck movements during non-peak hours because of the greater number of vehicles on the streets during the peak hour that would have to maneuver around queued trucks. Temporary vehicular parking demand associated with construction workers' vehicles and impacts on local intersections from vehicular traffic associated with construction workers would occur in proportion to the number of construction workers who use automobiles. Vehicular parking associated with construction workers' vehicles would temporarily increase occupancy levels in off-street vehicular parking facilities, either by those vehicles or by vehicles that currently park in on-street spaces and therefore would be displaced by the construction workers' vehicles.

In some instances, construction of the Hub Plan streetscape and street network improvements may require temporary street closures and rerouting of traffic; however, full street closures are not expected, with the exception of alleys where special paving may require full street closures. Sidewalk and travel-lane closures during construction are required to be coordinated with the

City to minimize the impacts on vehicles, including transit vehicles and bicycles, as well as people walking. In general, temporary construction-related travel-lane and sidewalk closures are subject to review and approval by the Interdepartmental Staff Committee on Traffic and Transportation, an interdepartmental committee that includes representatives from the department as well as public works, SFMTA, the police department, and the fire department.

As noted above, given the magnitude of projected subsequent development in the Hub Plan area and the transportation and streetscape projects anticipated to occur, as well as the uncertainty concerning construction schedules, construction activities associated with multiple overlapping projects could result in multiple travel-lane closures, high volumes of trucks in the vicinity, and sidewalk closures, which, in turn, could disrupt or delay transit, people bicycling, or people walking or result in potentially hazardous conditions (e.g., high volumes of trucks turning at intersections). Despite the best efforts of the project sponsors and project construction contractors, it is possible that simultaneous construction of subsequent development projects, as well as streetscape and street network improvements, could result in significant disruptions for vehicular traffic, transit, people walking, and people bicycling, even if each individual project alone would not result in significant impacts. In some instances, depending on construction activities, the overlap of two or more construction projects may not result in significant impacts. However, for conservative purposes, given the anticipated concurrent construction of multiple buildings in the Hub Plan area, some in proximity to each other; the expected intensity (i.e., the projected number of truck trips) and duration of construction; and the likely impact on transit, people bicycling, and people walking, the construction-related transportation impact under the Hub Plan would be considered a *significant impact*.

MITIGATION MEASURES

M-TR-1: *Construction Management Plan.* For projects within the Hub Plan area, the project sponsor shall develop and, upon review and consultation with the San Francisco Municipal Transportation Agency and San Francisco Public Works, implement a Construction Management Plan to address issues related to transportation-related circulation, access, staging, and hours of delivery. The Construction Management Plan would disseminate appropriate information to contractors and affected agencies regarding coordinating construction activities to minimize disruption and maintain circulation in the project area to the extent possible, with particular focus on ensuring connectivity for transit, people walking, and people bicycling. The Construction Management Plan would supplement and expand, rather than modify or supersede, any manual, regulations, or provisions set forth by San Francisco Municipal Transportation Agency, San Francisco Public Works, other City departments and agencies, the California Department of Transportation.

If it is determined during a subsequent project-level transportation study that construction of the proposed project would overlap with adjacent project(s) so as to result in transportation-related impacts, the project sponsor or its contractor(s) shall consult with City departments such as San Francisco Municipal Transportation Agency and San Francisco Public Works and conduct interdepartmental meetings, as deemed necessary by San Francisco Municipal Transportation Agency, San Francisco Public Works, and the department, to coordinate a Construction Management Plan with adjacent project(s) to minimize the severity of any disruption to adjacent land uses and transportation facilities by overlapping construction-related transportation impacts to the extent feasible and commercially reasonable in light of noise regulations, labor and contract requirements, available daylight hours, and critical-path construction schedules. Based on review of this plan, the project may be required to consult with San Francisco Municipal Transportation Agency Muni Operations prior to construction to review potential effects on nearby transit operations.

The Construction Management Plan shall include a range of measures for the project sponsor, with San Francisco Municipal Transportation Agency concurrence, to select and prioritize to minimize disruption to the extent feasible so that overall circulation in the project area is maintained to the extent possible. Potential measures to be included in the Construction Management Plan shall include, but not be limited to, the following:

- *Restricted Truck Access Hours* – Limit truck movements between the peak hours of 7 a.m. and 9 a.m. and between 4 p.m. and 7 p.m. to the extent feasible and commercially reasonable in light of noise regulations, labor and contract requirements, available daylight hours, and critical-path construction schedules, as well as other times, if required by San Francisco Municipal Transportation Agency, to minimize disruptions to vehicular traffic, including transit during the a.m. and p.m. peak periods.
- *Construction Truck Routing Plans* – Identify optimal truck routes between regional facilities and the project site, taking into consideration truck routes of other development projects and any construction activities affecting the roadway network.
- *Carpooling, Bicycle, Walking, and Transit Access for Construction Workers* – The construction contractor shall encourage carpooling, bicycling, or walking to the project site as well as transit options for construction workers. These methods could include providing transit subsidies to construction workers, providing secure bicycle parking spaces, participating in free-to-employee

ride-matching programs from *www.511.org*, participating in the emergency ride-home program through the City (*www.sferh.org*), or providing transit information to construction workers.

- *Project Construction Updates for Adjacent Businesses and Residents* – To minimize construction impacts on access, the project sponsor shall provide nearby residences and adjacent businesses with regularly updated information regarding project construction, including construction activities, peak construction vehicle activities (e.g., concrete pours), and travel-lane closures. At regular intervals, to be defined in the Construction Management Plan and, if necessary, the Coordinated Construction Management Plan, a regular email notice shall be distributed by the project sponsor to adjacent neighbors, residents, and others, as requested, providing current construction information of interest to neighbors as well as contact information for those with specific construction inquiries or concerns.

SIGNIFICANCE AFTER MITIGATION

Mitigation Measure M-TR-1 includes measures that would be included as part of the construction management plan to minimize significant construction-related transportation impacts during the overlap period. However, because imposing sequential (i.e., non-overlapping schedules) for all projects in the Hub Plan area would be infeasible due to potential lengthy delays in project implementation, substantial disruptions to transit and people walking and bicycling could continue to occur, even with implementation of the mitigation measure, and therefore, this measure would not reduce significant impacts to less-than-significant levels. Therefore, even with implementation of Mitigation Measure M-TR-1, the construction-related transportation impacts of the Hub Plan would remain *significant and unavoidable with mitigation*. It should be noted that the identification of this significant impact does not preclude finding future less-than-significant or less-than-significant-with-mitigation impacts for subsequent projects.

Impact TR-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not require an extended duration for the construction period or intense construction activity, the secondary effects of which could not create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit. (Less than Significant)

30 VAN NESS AVENUE PROJECT

The construction impact assessment for the 30 Van Ness Avenue Project is based on currently available information from the project sponsor and professional knowledge of typical construction practices citywide. Prior to construction, as part of the building permit process, the project sponsor and construction contractor(s) would be required to meet with public

works and SFMTA staff members to develop and review truck routing plans for demolition, disposal of excavated materials, material delivery and storage, as well as staging for construction vehicles.

It is anticipated that construction of the 30 Van Ness Avenue Project would take approximately 44 months (about 3.5 years). Most construction activities would include demolition, shoring and excavation, foundation and below-grade construction, base building, exterior and interior finishes, and sidewalks and landscaping. Construction activities would occur during weekdays and weekends between 7 a.m. and 7 p.m. Construction activities that may extend beyond normal hours include concrete pours, crane and hoist erection and adjustment activities, site maintenance activities, and material delivery and handling. Construction on major legal holidays is not anticipated, although some may occur on an as-needed basis, such as equipment and material deliveries, to minimize the impact on people walking and bicycling, vehicular traffic, and transit.

The vehicular parking lanes and sidewalks on Fell Street and, at a minimum, the northern portion of Van Ness Avenue adjacent to the project site would be temporarily closed during construction. During construction, people walking adjacent to the project site on Fell Street and Van Ness Avenue would be rerouted to the opposite sides of each respective street. The Market Street sidewalk and the staircase to the Muni Van Ness station would remain open, with overhead protection and barricades for people walking to provide a safe environment. The existing electric overhead catenary system on Market Street would be maintained. The Market Street sidewalk may be temporarily reduced to a 15-foot width to allow paving and associated work in that area. Market Street bicycle facilities and vehicular travel lanes would not be affected.

Construction equipment would be staged along Fell Street and Van Ness Avenue. A tower crane would be located either within the property line or within the closed sidewalk zone. Construction materials would be loaded and off-loaded in the closed vehicular parking lane on Fell Street or the northern portion of Van Ness Avenue at Fell Street, adjacent to the property. Materials would be scheduled to arrive when required in the construction sequence.

Vehicular travel-lane closures are not anticipated; however, some periodic vehicular lane closures would be required (e.g., during deliveries of large pieces of construction equipment, erection/dismantling of tower cranes, work involving oversized construction materials). These activities may be conducted on weekends when activity associated with people walking, transit, and vehicular traffic is lower. All temporary vehicular travel lane closures would be coordinated with the City to minimize the impacts on local traffic flow on adjacent streets. Per the SFMTA Blue Book, construction activities that affect travel lanes on Fell Street are restricted between 7 a.m. and 7 p.m. every day as well as Market Street between 6 a.m. and 7 p.m. every day. Work within Van Ness Avenue is subject to Caltrans encroachment permits. In addition, construction may require work in BART's zone of influence; activities would need to be coordinated with the BART Real Estate Department, which coordinates permits and plan review for any construction on, or adjacent to, the BART right-of-way, including the Muni Van Ness station.

There are no curbside bus stops adjacent to the project site on Fell or Market streets. There is an existing bus stop for the northbound 47 Van Ness and 49 Van Ness-Mission routes adjacent to the project site, immediately north of Market Street. However, it is anticipated that Van Ness BRT service would be implemented prior to initiation of construction of the 30 Van Ness Avenue Project in 2020 and that bus service would be relocated to the median transit-only lanes and platforms. If BRT service is not implemented prior to start of construction, then the existing bus stop may need to be relocated temporarily (e.g., north of Fell Street). Support poles for the electric overhead catenary system on Van Ness Avenue would need to be maintained during project construction. Prior to construction, the project contractor would contact Muni's Street Operations and Special Events Office to coordinate construction activities and minimize any conflicts with transit operations on Market Street.

Removal of excavated materials would require, on average, 26 trucks onsite per shift per day for about 60 days. Deliveries of materials during construction would vary, with an anticipated average of 16 trucks per day and a peak of 50 trucks per day, which would be sequenced to meet construction demand. The proposed haul route for trucks arriving from northbound U.S. 101 would be Mission Street, then continuing onto South Van Ness Avenue and Van Ness Avenue and arriving on the Van Ness Avenue side of the project site. Trucks would leave the project site by turning right onto Fell Street and continuing south to 10th Street to the U.S. 101 ramps. The impact of construction truck traffic would be a temporary lessening of the capacities of streets due to the slower movement and larger turning radii of trucks, which may block travel lanes and affect both traffic and Muni operations.

The greatest number of construction workers on the project site would be during the regular shift, when there would be an average of 120 workers onsite and a maximum of 250 workers onsite. Construction workers who drive to the site would cause a temporary vehicular parking demand. The time-limited vehicular parking in the vicinity of the project site would limit legal all-day vehicular parking by construction personnel. Because no dedicated vehicular parking for construction workers would be provided by the construction contractor, it is anticipated that construction workers would park in nearby vehicular parking facilities.

Overall, construction of the 30 Van Ness Avenue Project would maintain circulation for people walking and bicycling, and vehicular traffic in the project vicinity; however, some travel-lane and sidewalk closures would be required during the 44-month construction period. Construction would be required to meet City rules and guidance so that work is done safely and with the least possible interference with people walking and bicycling, transit vehicles, and other vehicles; therefore, it would not result in potentially hazardous conditions. For the reasons described above, the 30 Van Ness Avenue Project's construction-related transportation impacts would be *less than significant*.

98 FRANKLIN STREET PROJECT

The construction impact assessment for the 98 Franklin Street Project is based on currently available information from the project sponsor and professional knowledge of typical construction practices citywide. Prior to construction, as part of the building permit process, the project sponsor and construction contractor(s) would be required to meet with public works and SFMTA staff members to develop and review truck routing plans for demolition, disposal of excavated materials, material delivery and storage, as well as staging for construction vehicles.

It is anticipated that construction of the 98 Franklin Street Project would take approximately 27 months (about 2.25 years). Most construction activities would include demolition, shoring and excavation, foundation and below-grade construction, above-grade structure work, exterior and interior finishes, and sidewalks and landscaping. Construction activities would occur for construction workers on weekdays and weekends between 6 a.m. to 8 p.m., and in accordance with City regulations on building construction hours. Construction activities that may extend beyond normal hours include concrete pours and road work. Construction on major legal holidays is not anticipated, although some may occur on an as-needed basis, such as equipment and material deliveries, to minimize the impact on people walking and people bicycling, vehicular traffic, and transit.

Construction materials would be loaded and off-loaded on Franklin or Oak streets, and materials would arrive when required in the construction sequence. Construction staging would occur onsite and on the sidewalks and in the vehicular parking lanes adjacent to the project site on Franklin, Oak, and Market streets. It is anticipated that a portion of the sidewalks adjacent to the project site on Franklin and Oak streets would be closed for the duration of construction. People walking would be directed to the opposite sides of the street. On Market Street, it is anticipated that a protected walkway for people walking would be provided within the remaining sidewalk. In the vicinity of the project site, people bicycling share the travel lane with right-turning vehicles and would not be substantially affected by the staging of project construction materials along the Market Street frontage. The existing bicycle lane on Market Street east of the project site would not be affected by project construction activities.

Construction activities may require temporary travel-lane closures of the easternmost travel lane on Franklin Street approximately twice per week for about 12 months, until the interior elevators in the above-grade structure are operational. This travel-lane closure would be coordinated with the City to minimize the impacts on local traffic flow on Franklin Street. Additional periodic lane closures would most likely be required (e.g., during deliveries of large pieces of construction equipment, erection/dismantling of tower cranes, during work involving oversized construction materials). These activities may be conducted on weekends when activity associated with people walking, transit, and vehicular traffic is lower. Per the SFMTA

Blue Book, construction activities that affect travel lanes on Franklin Street are restricted between 7 a.m. and 7 p.m. every day and Market Street between 6 a.m. and 7 p.m. every day.

There are no curbside bus stops adjacent to the project site on Franklin, Oak, or Market streets. Prior to construction, the project contractor would coordinate with Muni's Street Operations and Special Events Office to coordinate construction activities and minimize any conflicts with transit operations on Market Street.

Construction of the project would require, on average, 60 trucks onsite per shift per day and a maximum of 90 trucks onsite per shift per day during excavation. The greatest number of trucks traveling to and from the site would occur during the tower mat concrete pour, which would require 550 truck trips over one 14-hour period on a weekend. The proposed haul route for the excavated soil would have trucks arrive at the project site via northbound U.S. 101 and either (1) continue north on Octavia Boulevard, turn right on Oak Street eastbound, continue to Franklin Street northbound, continue to Fell Street eastbound, continue to Van Ness southbound, and continue to Oak Street eastbound or (2) continue north on Octavia Boulevard, turn right on Page Street, and turn left on Franklin Street. The impact of construction truck traffic would be a temporary lessening of the capacities of streets due to the slower movement and larger turning radii of trucks, which may block travel lanes and affect both traffic and Muni operations.

The greatest number of construction workers on the project site would be during the regular shift, when there would be an average of 200 workers onsite and a maximum of 350 workers onsite. The way of access for construction workers would be primarily public transit because of the site's proximity to numerous transit routes. Construction workers who drive to the site would temporarily increase vehicular parking demand. The time-limited vehicular parking in the vicinity of the project site would limit legal all-day vehicular parking by construction workers. Because no dedicated vehicular parking for construction workers would be provided by the construction contractor, it is anticipated that construction workers would park in nearby vehicular parking facilities, such as the Civic Center Garage or the Performing Arts Garage.

Overall, construction of the 98 Franklin Street Project would maintain circulation for people walking and bicycling, and vehicular traffic in the project vicinity; however, some travel lane and sidewalk closures would be required during the 27-month construction period. Construction activities would be required to meet City rules and guidance so that work is done safely and with the least possible interference with people walking and bicycling, transit vehicles, and other vehicles; therefore, it would not result in potentially hazardous conditions. For the reasons described above, the 98 Franklin Street Project's construction-related transportation impacts would be *less than significant*.

Impact TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not cause substantial additional VMT or induced automobile travel. (Less than Significant)

With respect to VMT, the effects of the proposed rezoning under the Hub Plan are analyzed in this EIR at a programmatic level; the proposed Hub Plan streetscape and street network improvements are analyzed at a project level. Subsequent development projects within the Hub Plan area would be required to go through separate environmental review. A project-level analysis is provided for the 30 Van Ness Avenue Project and the 98 Franklin Street Project.

THE HUB PLAN

The analysis of the implementation of the Hub Plan on VMT was conducted by comparing the VMT per capita for conditions without and with implementation of the Hub Plan, as well as assessing consistency with the region's Sustainable Communities Strategy. As described in Approach to Analysis, specifically under VMT Analysis Methodology, beginning on p. 3.B-38, the City's SF-CHAMP travel demand model was used to calculate VMT per capita for conditions without and with implementation of the Hub Plan. **Table 3.B-11** presents the daily VMT per capita for the three land use types for conditions without and with implementation of the Hub Plan for 2020 conditions, and indicates that the VMT per capita for residential, office, and retail land uses within the Hub Plan area are substantially below the Bay Area regional average.

- For the residential uses, the average daily VMT per capita for the Hub Plan area without and with implementation of the Hub Plan would be between 78 and 79 percent below the 2020 baseline regional average daily VMT per capita.
- For the office uses, the average daily work-related VMT per employee for the Hub Plan area without and with implementation of the Hub Plan would be between 59 and 61 percent below the 2020 baseline regional average daily VMT per employee.
- For the retail uses, the average daily retail VMT per employee for the Hub Plan area without and with implementation of the Hub Plan would be between 31 and 34 percent below the 2020 baseline regional average daily VMT per employee.

With implementation of the Hub Plan, subsequent development projects under the Hub Plan would remain within an area of the city where the daily VMT per capita is more than 15 percent below the regional VMT thresholds. Moreover, subsequent development projects under the Hub Plan would share many of the characteristics that result in low VMT per capita in the area, characteristics such as density, diversity of uses, proximity to transit, etc. As such, implementation of the Hub Plan would not generate a substantial increase in VMT. In addition, under planning commission resolution 19579, the impact assessment of the Hub Plan's rezoning

TABLE 3.B-11. DAILY VMT PER CAPITA – HUB PLAN AREA 2020 AND 2040 CONDITIONS WITHOUT HUB PLAN AND WITH IMPLEMENTATION OF THE HUB PLAN

Analysis Scenario/Trip Type (Land Use)	Bay Area Regional Average	Without Hub Plan ^c	With Hub Plan ^c
2020 Baseline			
Households (residential)	14.2	2.9	3.1
Employment (office)	14.3	5.9	5.6
Visitors (retail)	12.6	8.7	8.3
2040 Cumulative			
Households (residential)	13.4	2.7	2.8
Employment (office)	13.4	5.8	5.7
Visitors (retail)	12.4	9.0	8.8

Source: San Francisco County Transportation Authority, SF-CHAMP 5.2, 2020 and 2040 Hub Plan Project Model Runs.

^a. Average daily VMT per capita for the 15 Transportation Analysis Zones (TAZs) comprising the Hub Plan area.

proposal requires demonstrating consistency with the region’s Sustainable Communities Strategy. The Metropolitan Transportation Commission’s (MTC’s) Plan Bay Area 2040, adopted in July 2017, is the region’s Sustainable Communities Strategy. The EIR prepared for Plan Bay Area 2040 identified an overall reduction in VMT per capita under Plan Bay Area 2040 compared to existing conditions (2015), and the impact related to VMT was determined to be less than significant. The analysis of the Sustainable Communities Strategy for San Francisco indicated that with implementation of Plan Bay Area 2040 the VMT per capita in 2040 would be about 57 percent less than for the region, and that the VMT per capita within San Francisco would decrease by 5 percent between 2015 and 2040 (with implementation of Plan Bay Area 2040).⁵³ Because the Plan Bay Area 2040 analysis found that VMT per capita within San Francisco would decrease between 2015 and 2040 and overall VMT per capita in San Francisco would be substantially less than it is in the region, the Hub Plan would be considered consistent with the region’s Sustainable Communities Strategy. Therefore, the Hub Plan’s impacts related to VMT would be *less than significant*.

STREETSCAPE AND STREET NETWORK IMPROVEMENTS

The transportation changes of the Hub Plan include the types identified by the Office of Planning and Research that would not substantially induce automobile travel (e.g., raised intersections and crosswalks, wider sidewalks, bulb-outs, the removal of vehicular parking, signal timing changes,

⁵³ Metropolitan Transportation Commission, *Plan Bay Area 2040 Draft EIR*, SCH #2016.052041, April 2017, p. 2.1-34; Final EIR, July 2017; Addendum to the Final EIR, March 2018, <https://www.planbayarea.org/2040-plan/environmental-impact-report>.

modifications to travel lanes). Thus, the proposed streetscape and street network improvements would not induce automobile travel, and implementation of the Hub Plan's streetscape and street network improvements would result in less-than-significant VMT impacts.

The streetscape and street network improvements would implement features that would alter the transportation network. These include new and reconstructed sidewalks, sidewalk bulb-outs, bicycle facilities, removal of on-street vehicular parking, on-street commercial and passenger loading/unloading zones, new traffic signals and signal timing changes, raised crosswalks and intersections, and modified travel lanes. These features fit with the general types of projects identified in Approach to Analysis, under VMT Analysis Methodology, p. 3.B-38, that would not substantially induce automobile travel. Therefore, the proposed streetscape and street network improvements would not result in a substantial increase in automobile travel.⁵⁴ For the reasons described above, streetscape and street network improvement's impacts related to VMT and induced automobile travel would be *less than significant*.

30 VAN NESS AVENUE PROJECT

Land use development projects may cause additional VMT. The existing average daily VMT per capita for the transportation analysis zone in which the 30 Van Ness Avenue project site is located (i.e., TAZ 647) is below the existing regional average daily VMT.⁵⁵ In addition:

- For the residential uses, the average daily VMT per capita is 2.5, which is about 86 percent below the existing regional average daily VMT per capita of 17.2.
- For office uses, the average daily work-related VMT per employee is 7.6, which is about 60 percent below the existing regional average daily work-related VMT per employee of 19.1.
- For the retail uses, the average daily retail VMT per employee is 8.1, which is about 46 percent below the existing regional average daily retail VMT per employee of 14.9.

⁵⁴ San Francisco Planning Department, *Executive Summary: Resolution Modifying Transportation Impact Analysis*, Appendix F, Attachment A, March 3, 2016.

⁵⁵ The map-based screening for residential, office, and retail projects was applied to the proposed project. The 30 Van Ness Avenue project site is located within TAZ 647, which is within an area of the city where the existing VMT is more than 15 percent below the regional VMT thresholds, as documented in *Executive Summary: Resolution Modifying Transportation Impact Analysis*, Appendix A, Attachment F (Methodologies, Significance Criteria, Thresholds of Significance, and Screening Criteria for Vehicle Miles Traveled and Induced Automobile Travel Impacts). San Francisco County Transportation Authority memorandum, March 3, 2016, http://commissions.sfplanning.org/cpcpackets/Align-CPC%20exec%20summary_20160303_Final.pdf.

Because the 30 Van Ness Avenue Project proposes to provide vehicular parking in excess of that permitted for residential uses under the Hub Plan, it would not meet the department's proximity to transit stations criterion.⁵⁶ Therefore, an additional assessment was conducted to review the indirect impact of the project's parking supply in affecting the VMT per capita for the residential uses. Per the 2019 Transportation Impact Analysis Guidelines, the methodology for this additional analysis compares the existing parking supply rate in the surrounding neighborhood (i.e., the neighborhood parking rate) to the project's proposed parking rate.

The neighborhood parking rate for residential uses in TAZ 647, which is where the site for the 30 Van Ness Avenue Project is located, is 0.56 vehicular parking space per residential unit.⁵⁷ The 30 Van Ness Avenue Project would provide a maximum of 243 vehicular parking spaces for the 350 to 610 residential units; this analysis conservatively uses the lowest residential unit count of 350, or 0.69 vehicular parking space per unit.⁵⁸ The parking rate of 0.69 space per unit is slightly higher than the neighborhood's average of 0.56 space. However, given that existing residential VMT per capita for the TAZ (i.e., 2.5 VMT per capita) is substantially lower than the threshold of 15 percent below the regional daily residential VMT per capita (i.e., 17.2 VMT per capita), it is unlikely that the 30 Van Ness Avenue Project's ratio of parking spaces per dwelling unit would result in an exceedance of the residential VMT threshold. Therefore, the 30 Van Ness Avenue Project would not substantially increase VMT per capita with the residential use.

As described above, the 30 Van Ness Avenue Project would meet the City's map-based screening for residential, office, and retail projects (i.e., the project site is within an area of the city where the existing VMT is more than 15 percent below the regional VMT thresholds), its proposed vehicle parking rate would not substantially increase VMT per capita with the residential use, and it would include features that would be similar to features at other developments in the area in terms of density and the mix of uses. As such, the 30 Van Ness Avenue Project's land uses would not generate a substantial increase in VMT.

⁵⁶ As indicated in the VMT Analysis Methodology, starting on p. 3.B-38, the department presumes that residential, retail, and office projects, as well as projects with a mix of these uses, proposed within 0.5 mile of an existing major transit stop or an existing stop along a high-quality transit corridor would not exceed the VMT thresholds of significance. However, this presumption would not apply if the project would have a floor area ratio of less than 0.75; would include more parking for use by residents, customers, or employees of the project than required or allowed without a conditional use; or would be inconsistent with the applicable Sustainable Communities Strategy.

⁵⁷ The existing neighborhood vehicle parking rate takes into account the number of parking spaces and residential units for multiuse buildings in the TAZ itself and other nearby TAZs (within 0.75 mile, based on walking distance), with more distant parking spaces and residential units given decreasing weight.

⁵⁸ The 30 Van Ness Avenue project sponsor would seek a planning code text amendment to allow a mixed-use project in the Hub Plan area, providing at least 25 percent onsite (or 33 percent offsite) affordable housing to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would be 7 percent of the occupied floor area. The 30 Van Ness Avenue Project would not exceed these amounts.

The 30 Van Ness Avenue Project would also include features that would alter the transportation network. These features include reconstructed and widened sidewalk areas, the removal of on-street vehicular parking, and on-street commercial and passenger loading zones. These features fit within the general types of projects that would not substantially induce automobile travel. Therefore, for the reasons described above, the 30 Van Ness Avenue Project's impacts related to VMT and induced automobile travel would be *less than significant*.

98 FRANKLIN STREET PROJECT

The existing average daily VMT per capita for the transportation analysis zone in which the 98 Franklin Street project site is located (i.e., TAZ 647) is below the existing regional average daily VMT.⁵⁹ In addition:

- For the residential uses, the average daily VMT per capita is 3.5, which is about 80 percent below the existing regional average daily VMT per capita of 17.2.
- For the office uses (i.e., institutional), the average daily work-related VMT per employee is 7.6, which is about 60 percent below the existing regional average daily work-related VMT per employee of 19.1.
- For the retail uses, the average daily retail VMT per employee is 8.3, which is about 44 percent below the existing regional average daily retail VMT per employee of 14.9.

As described above, the project site is within an area of the city where the existing VMT is more than 15 percent below the regional VMT thresholds. The 98 Franklin Street Project would meet the City's map-based screening for residential, office, and retail projects, and it would include similar features to other developments in the area in terms of density and mix of uses. As such, the 98 Franklin Street Project's land uses would not generate a substantial increase in VMT. Furthermore, the project site meets the proximity to transit stations screening criterion, which also indicates that the 98 Franklin Street Project's uses would not cause substantial additional VMT.⁶⁰

⁵⁹ The map-based screening for residential, office, and retail projects was applied to the proposed project. The 98 Franklin Street project site is located within TAZ 589, which is within an area of the city where the existing VMT is more than 15 percent below the regional VMT thresholds, as documented in *Executive Summary: Resolution Modifying Transportation Impact Analysis*, Appendix A, Attachment F (Methodologies, Significance Criteria, Thresholds of Significance, and Screening Criteria for Vehicle Miles Traveled and Induced Automobile Travel Impacts). San Francisco County Transportation Authority memorandum, March 3, 2016, http://commissions.sfplanning.org/cpcpackets/Align-CPC%20exec%20summary_20160303_Final.pdf

⁶⁰ San Francisco Planning Department, *Eligibility Checklist: CEQA Section 21099 – Modernization of Transportation Analysis for the 98 Franklin Street Project*, April 19, 2019.

The 98 Franklin Street Project would also include features that would alter the transportation network. These features include reconstructed and widened sidewalks, reconfigured on-street vehicular parking, and on-street commercial and passenger loading zones. These features fit within the general types of projects that would not substantially induce automobile travel. Therefore, for the reasons described above, the 98 Franklin Street Project's impacts related to VMT and induced automobile travel would be *less than significant*.

Impact TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create major driving hazards. (Less than Significant)

HUB PLAN

Subsequent development projects within the Hub Plan area would be required to undergo review by City agencies, including a review of ground-floor/street-level operations so that loading operations and vehicle access are adequately accommodated without obstructing, hindering, or impairing drivers' reasonable and safe views of other vehicles, people walking, or people bicycling on the same street and/or restricting the ability of a driver to stop a motor vehicle without danger of an ensuing collision. Design features of subsequent development projects would need to be consistent with *Better Streets Plan* standards and Vision Zero policies, both of which focus on eliminating existing hazards and designing the transportation network so as to enhance safety of all ways of travel. Although subsequent development under the Hub Plan would add vehicle trips to the surrounding roadways, this general increase in vehicular traffic volumes would be distributed among multiple streets in the transportation study area and would not be considered a traffic hazard.

The streetscape and street network improvements were designed to reduce vehicle hazards by increasing visibility and slowing vehicular traffic. The proposed streetscape and street network improvements were developed in consultation with various City agencies to prioritize safe travel for people bicycling and people walking within the transportation study area. The proposed streetscape and street network improvements are presented in Chapter 2, Project Description, starting on p. 2-32, and include sideway widening and bulb-outs, opening sidewalks, raised crosswalks and intersections within alleys, shared streets and pedestrian-only alleys, separated through and local travel lanes with a median, conversion of one-way streets to two-way streets, new signalized crossings for people walking, new traffic signals, and changes to on-street curb regulations. None of these are types of projects or in locations that would result in driving hazards.

The streetscape and street network designs would undergo more detailed design and review. The street designs would be subject to approval by SFMTA, public works, and the fire department, along with other City agencies. Therefore, the changes to the transportation network would be consistent with City policies and design standards and would not result in

driving hazards. Thus, for the reasons described above, the Hub Plan would not create potentially hazardous conditions for people driving, and impacts related to driving hazards would be *less than significant*.

30 VAN NESS AVENUE PROJECT

In assessing driving hazards for the 30 Van Ness Avenue Project, the proposed project's building characteristics were reviewed to determine whether they would obstruct, hinder, or impair drivers' reasonable and safe views of other vehicles, people walking, or people bicycling on the same street and/or restrict the ability of a driver to stop a motor vehicle without danger of an ensuing collision.

The 30 Van Ness Avenue Project would not introduce any features that would result in driving hazards. As discussed in Impact TR-9, below, the 30 Van Ness Avenue Project would provide both onsite and on-street commercial loading spaces to accommodate the commercial loading demand generated by the proposed residential, office and retail uses and provide passenger loading zones to accommodate passenger loading needs. The sidewalk bulb-out adjacent to the project site on Fell Street and the recessed commercial and passenger loading zone on Van Ness Avenue have been designed to enhance the safety of people walking at these locations, conform to SFMTA and *Better Streets Plan* standards, and not create potentially hazardous conditions for people driving.

The 30 Van Ness Avenue Project would provide a total of 243 vehicular parking spaces in below-grade levels that would be accessed from Fell Street, similar to where vehicular access to the existing building on the project site is provided (there are about 40 vehicular parking spaces on the ground floor and mezzanine level of the existing building on the project site). The garage ramp to the below-grade levels would provide space for vehicles accessing the garage and would not result in queues within the travel lane on Fell Street. Given the primarily residential use of the vehicular parking spaces, with a lower trip generation rate than commercial uses, minimal, if any, queuing associated with vehicles accessing the project garage would be expected.

Adjacent to the project site, Fell Street has three eastbound travel lanes, which allow drivers traveling eastbound to shift travel lanes, if needed. In addition, the curb lane adjacent to the project site is a right-turn-only lane (for vehicles traveling from Fell Street onto Market Street), which has fewer vehicles than the two adjacent through lanes. Provision of a loading driveway curb cut and a no parking zone to the west of the garage driveway would allow drivers entering and exiting the garage to see each other, as well as to see other vehicles within the right-most lane of eastbound Fell Street. The proposed garage would include visual and audible signals to alert passing drivers and people walking and people bicycling of an approaching exiting vehicle. Thus, the 30 Van Ness Avenue Project would not create potentially hazardous conditions for people driving, and impacts related to driving hazards would be *less than significant*.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Project's building characteristics were reviewed to determine whether they would create a traffic hazard for people driving. The 98 Franklin Street Project would eliminate the three existing curb cuts adjacent to the project site on Oak Street and relocate the existing curb cut on Franklin Street. The proposed curb cut into the project garage would be approximately 110 feet south of Oak Street. The width of the curb cut would be reduced from 25 feet under existing conditions to 20 feet wide. A total of 111 vehicular parking spaces would be provided in below-grade levels; therefore, queuing space would be provided on the ramp for vehicles accessing the garage.

Queues within the travel lane on Franklin Street would not occur. Because the number of vehicular parking spaces within the garage would be limited and the spaces would be for residential uses, with a lower trip generation rate than commercial uses, minimal, if any, queues are anticipated that would extend into the adjacent travel lanes on Franklin Street. Adjacent to the project site, Franklin Street has three northbound travel lanes, which allow drivers traveling northbound to shift travel lanes, if needed. In addition, on-street parking south of the driveway would be located consistent with City standards to provide adequate sight distance for drivers exiting the driveway. Thus, the 98 Franklin Street Project would not introduce any features that would result in driving hazards.

As discussed in Impact TR-9, below, the 98 Franklin Street Project would provide both onsite truck and service-vehicle loading spaces to accommodate the commercial loading demand generated by the proposed residential, school, and retail uses; provide a shared commercial and passenger loading zone on Oak Street to accommodate passenger loading needs; and provide additional on-street commercial loading space. The sidewalk bulb-outs adjacent to the project site on Oak and Franklin streets have been designed to enhance safety for people walking at these locations, conform to SFMTA and *Better Streets Plan* standards, and not create potentially hazardous conditions for people driving. Thus, the 98 Franklin Street Project would not create potentially hazardous conditions for people driving, and impacts related to driving hazards would be *less than significant*.

Impact TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially delay local or regional transit or create potentially hazardous conditions for public transit providers. (Less than Significant)

HUB PLAN

Implementation of the Hub Plan would increase transit travel times because of a combination of factors, including additional vehicular traffic and transit ridership generated by subsequent development under the Hub Plan as well as proposed changes to the roadway network. During the weekday p.m. peak hour, subsequent development under the Hub Plan would generate 3,937 transit trips that would be distributed among the numerous bus routes and subway lines

serving the transportation study area. In addition, subsequent development under the Hub Plan would generate about 4,909 vehicle trips during the p.m. peak hour that would use streets within the transportation study area. The greatest increases in traffic volumes are projected to occur on streets with no transit routes (e.g., South Van Ness Avenue south of Mission Street, Octavia Boulevard, Gough Street, Franklin Street), or on streets where transit-only lanes will be implemented by the 2020 baseline year (e.g., on Van Ness Avenue, on South Van Ness Avenue north of Mission Street, and on Otis Street).

Local Transit. As discussed in Approach to Analysis, beginning on p. 3.B-37, the impact of the Hub Plan, including changes to the streetscape and street network, on Muni transit operations, such as increased transit travel times, was analyzed for eight Muni routes under weekday p.m. peak-hour conditions. The routes that were analyzed are 5 Fulton, 5R Fulton Rapid, 9 San Bruno, 9R San Bruno Rapid, 14 Mission, 14R Mission Rapid, 19 Polk and 21 Hayes. The analysis assessed the impact of project-generated vehicles and transit ridership on these routes throughout the transportation study area and considered the proposed streetscape and street network improvements. Impacts on transit operations were determined to be significant if increases in travel times during the peak hour of analysis on a particular route in a particular direction would be greater than or equal to four minutes or half of the existing headway, whichever would be less.

Table 3.B-12 presents the transit travel time analysis for the eight Muni routes under baseline-plus-project conditions. The table presents the headway for routes under 2020 baseline conditions, the threshold applicable to the route (i.e., four minutes or half the headway, whichever is less), and the transit travel time changes between 2020 baseline and 2020 baseline-plus-project conditions. As shown in the table, the increases in transit travel times for all of the routes would be less than the significance threshold of four minutes or half the headway, and therefore, implementation of the Hub Plan would not result in a significant impact on transit operations.

The proposed streetscape and street network improvements were also assessed qualitatively to determine whether any features would result in potentially hazardous conditions for transit operators. Most proposed streetscape and street network improvements are related to enhancing the environment for people walking. They generally serve to improve drivers' sightlines and increase the visibility of people walking for drivers. The proposed streetscape and street network improvements would not substantially change travel lanes within the transportation study area so as to create potentially hazardous conditions for transit operations. Hub Plan streetscape and street network improvements that would modify travel lanes consist of the following:

- The vehicular parking lane on the east side of Otis Street between McCoppin Street and Duboce Avenue would be converted to a northbound lane but would not affect operation of the 14 Mission, 14R Mission Rapid, or 49 Van Ness-Mission routes. These routes would continue to travel within the existing southbound transit-only lane on Otis Street.

TABLE 3.B-12. MUNI TRANSIT OPERATIONS ANALYSIS – 2020 BASELINE-PLUS-PROJECT CONDITIONS – WEEKDAY P.M. PEAK HOUR

Route/Direction^a	2020 Baseline Headways (min:sec)	Threshold (half the headway or four minutes, whichever is less)	Travel Time Change from 2020 Baseline Conditions (min:sec)
5 Fulton – inbound	9:00	4:00	1:54
5 Fulton – outbound	9:00	4:00	0:42
5R Fulton Rapid – inbound	6:00	3:00	0:26
5R Fulton Rapid – outbound	6:00	3:00	0:25
9 San Bruno – inbound	12:00	4:00	0:57
9 San Bruno – outbound	12:00	4:00	0:29
9R San Bruno Rapid – inbound	8:00	4:00	0:03
9R San Bruno Rapid – outbound	8:00	4:00	0:02
14 Mission – inbound	15:00	4:00	0:03
14 Mission – outbound	15:00	4:00	0:23
14R Mission Rapid – inbound	8:00	4:00	0:05
14R Mission Rapid – outbound	8:00	4:00	0:04
19 Polk – inbound	15:00	4:00	0:22
19 Polk – outbound	15:00	4:00	0:10
21 Hayes – inbound	9:00	4:00	1:08
21 Hayes – outbound	9:00	4:00	0:32

Source: SFMTA, Fehr & Peers, 2019.

^a. Inbound direction generally means headed toward downtown San Francisco. It is the opposite of the outbound direction. Routes that do not go downtown have a consistent definition for inbound and outbound. For example, the 19 Polk is defined as heading inbound to the Marina and outbound to Hunters Point.

- On Mission Street northbound, the west curb lane, which is currently the U-turn lane from northbound Mission Street to southbound Otis Street, would be converted to a transit-only lane as part of the Muni Forward project; the U-turn movement would be eliminated. This streetscape and street network change would facilitate bus access from northbound Mission Street to the median transit-only lane on northbound South Van Ness Avenue.
- Other proposed streetscape and street network improvements that would affect travel lanes would occur on 12th and Stevenson streets; however, no transit routes would be affected by these changes.

For the above reasons, the proposed Hub Plan streetscape and street network improvements would not result in potentially hazardous conditions for transit operators.

Regional Transit. Both SamTrans and Golden Gate Transit buses travel on city streets within the transportation study area, including Mission, Seventh, Eighth, Ninth and 10th streets. In addition, under baseline conditions, Golden Gate Transit would operate within the median transit-only lane and stop at median platforms on Van Ness Avenue (i.e., at completion of the Van Ness BRT project). Regional transit running on Van Ness Avenue within transit-only lanes would not experience increased delays because transit operations would not be affected by vehicles traveling in the adjacent mixed-flow travel lanes. Regional routes running on Mission Street through the transportation study area would experience similar increases in travel times, as would Muni routes on Mission Street (see **Table 3.B-12**, p. 3.B-72); similar to the Muni routes, the increase would remain below the significance threshold. Regional routes using Seventh and Eighth streets through the transportation study area would experience similar changes in travel times, as would the 19 Polk on these streets (see **Table 3.B-12**, p. 3.B-72); similar to the 19 Polk, the increase would remain below the significance threshold. Some SamTrans routes operate along Ninth and 10th streets in the South of Market (SoMa) neighborhood over approximately five blocks on each street within the transportation study area. These are one-way streets with multiple travel lanes. Although the buses would experience a modest increase in vehicular traffic volumes due to the short extent of the route in this corridor, this would not result in a substantial increase in vehicular traffic congestion experienced by the buses and would not result in a significant impact related to transit delay. Therefore, implementation of the Hub Plan would not result in significant impacts related to transit delay. In addition, as discussed above for local transit, implementation of the Hub Plan's proposed streetscape and street network improvements would not result in potentially hazardous conditions for regional transit. Thus, for the reasons described above, the Hub Plan would not substantially delay Muni or regional transit and would not create potentially hazardous conditions. Transit impacts would be *less than significant*.

30 VAN NESS AVENUE PROJECT

As described in Approach to Analysis, beginning on p. 3.B-37, the 30 Van Ness Avenue project would generate 3,418 daily and 305 weekday p.m. peak-hour trips by transit. In addition, during the weekday p.m. peak hour, the 30 Van Ness Avenue project would generate 56 inbound and 126 outbound vehicle trips (total of 182 vehicle trips). The 56 inbound project vehicle trips would be substantially less than the 300 inbound p.m. peak-hour project vehicle trips identified by the department as the number of vehicle trips that could result in delays for transit and exceed the 4-minute threshold of significance. Therefore, the 30 Van Ness Avenue Project would not result in a significant impact related to transit delay.

The 30 Van Ness Avenue Project does not propose any driveways on Van Ness Avenue. Under 2020 baseline conditions, which include implementation of the Van Ness BRT/Improvement Project, both Muni and Golden Gate Transit bus routes would operate within the center median, and the existing curb bus stops on Van Ness Avenue would be discontinued. With

implementation of the Van Ness BRT/Improvement Project, the existing curbside bus stop adjacent to the project site on northbound Van Ness Avenue north of Market Street would be replaced by a median platform on northbound South Van Ness Avenue south of Market Street. In the southbound direction, the nearest median platform would be located at the southbound Van Ness Avenue north of Market Street.

No Muni or regional transit routes operate on the segment of Fell Street adjacent to the site, and adequate commercial vehicle and passenger loading would be provided onsite and/or on the street on Van Ness Avenue and Fell Street. Therefore, the 30 Van Ness Avenue project would not create potentially hazardous conditions for public transit operators. For the reasons described above, the 30 Van Ness Avenue Project's transit impacts would be *less than significant*.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Project would generate 773 daily and 71 weekday p.m. peak-hour transit trips. In addition, during the weekday p.m. peak hour, the 98 Franklin Street project would generate 30 inbound and 19 outbound vehicle trips (total of 49 vehicle trips). The 30 inbound project vehicle trips would be substantially less than the 300 inbound p.m. peak-hour project vehicle trips identified by the department as the number of vehicle trips that could result in delays for transit and exceed the 4-minute threshold of significance. Therefore, the 98 Franklin Street project would not result in a significant impact related to transit delay.

No Muni or regional bus routes operate adjacent to the site on either Franklin or Oak streets, and adequate commercial vehicle and passenger loading would be provided onsite and/or on the street on Franklin and Oak streets. Therefore, the 98 Franklin Street Project would not create potentially hazardous conditions for public transit operators. For the reasons described above, the 98 Franklin Street Project's transit impacts would be *less than significant*.

Impact TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people walking or otherwise interfere with accessibility for people walking to the project site or adjoining areas. (Less than Significant)

HUB PLAN

Subsequent development under the Hub Plan would generate about 15,410 trips during the p.m. peak hour (i.e., 3,927 trips by transit and 11,483 trips by walking and other ways of travel). Trips by people walking would be dispersed throughout the Hub Plan area, with a greater proportion on streets south of Market Street where more development under the Hub Plan is projected to occur. Some of the subsequent development projects under the Hub Plan would include streetscape improvements to enhance conditions for people walking, as required under the *Better Streets Plan*.

Many Hub Plan streetscape and street network improvements include features that would improve the streetscape and street network for people walking. The changes would be designed consistent with the standards of the *Better Streets Plan*. Streetscape and street network changes that would enhance the environment for people walking, as well as accessibility, include opening sidewalks, increasing visibility, reducing vehicle speeds, widening sidewalks, and adding new signals. In addition to the transportation network changes, other streetscape amenities, such as public seating, landscaping, street trees, and lighting for people walking, would also be included. The boundaries of each streetscape and street network change are presented in **Figure 2-3**, p. 2-8, and a detailed description of the streetscape and street network improvements is provided in Chapter 2, Project Description, beginning on p. 2-32.

The plans for the proposed Hub Plan's transportation network and streetscape improvements would be refined as the design process progresses. As part of that work, a preliminary review would be conducted by SFMTA's Transportation Advisory Staff Committee (TASC) and the fire department, along with other City agencies. The proposed streetscape and street network improvements would not introduce unusual design features that would result in hazardous conditions for people walking.

- South Van Ness Avenue between Mission and 13th streets would be redesigned as a boulevard to enhance safety, provide vehicular traffic calming, and enhance the environment for people walking. The through travel lanes in each direction would be separated from frontage curbside lanes by planted medians. In addition, a new signalized crossing for people walking and sidewalk bulb-outs would be provided in the middle of the block. Sidewalk bulb-outs would also be provided at the intersection of South Van Ness Avenue/Mission Street/Otis Street/12th Street. The provision of a new signalized midblock crossing would enhance circulation and safety for people walking because it would substantially reduce the distance people walking would need to travel to cross the street.
- Duboce Avenue between Valencia and Mission streets and 13th Street between Mission and Folsom streets would be redesigned to improve safety and travel conditions for people walking and people bicycling by providing a bikeway between Valencia and Folsom streets, which would connect with the existing bikeway to the east on 13th Street. On Duboce Avenue, one westbound travel lane and the on-street parking on both sides of the street would be removed; on 13th Street, the vehicular parking and westbound service lane would be reorganized. On the north side of 13th Street, the currently closed sidewalk would be opened, and the sidewalk connection between Mission Street and South Van Ness Avenue would be improved. On the south side of 13th Street, a continuous sidewalk between Mission Street and South Van Ness Avenue would be provided, and the sidewalk would be widened.

- Wider sidewalks would also be provided on 12th Street between Market and Mission streets, Gough Street between Stevenson and Otis streets, South Van Ness Avenue between Mission and 13th streets, and Otis Street between South Van Ness Avenue and Gough Street as well as at the intersection of South Van Ness Avenue/Mission Street/Otis Street/12th Street.
- On Plum Street, between Mission Street and South Van Ness Avenue, a portion of the sidewalk would be widened to match the adjacent alignment and provide a consistent amount of space for people walking.
- Raised crosswalks and/or raised intersections would be created on multiple alley segments, including Lily Street between Franklin and Gough streets, Rose Street between Gough and Market streets, Lafayette Street between Mission and Howard streets, Minna Street between 10th and Lafayette streets, Stevenson Street between Brady Street and the dead end, and on Brady Street between Colton and Otis streets. A raised crosswalk would also be created across Woodward Street at Duboce Avenue. The raised crosswalks and intersections would provide a level area for people walking as they cross the street, and because vehicles must travel up and down over the raised crossing, vehicle travel speeds would be reduced. On most of these street segments, special paving would also be installed to further reinforce the right-of-way as a space for people walking.
- Colusa Place between Colton Street and Chase Court, and Chase Court between Colusa Place and the dead end would become shared streets, and Colton Street between Brady and Gough streets would become pedestrian-only streets. The shared street and pedestrian-only streets would have special paving. A shared street is a street that minimizes the segregation between ways of travel (e.g., vehicles, people walking and people bicycling, and other ways of travel). Shared streets have low vehicle travel speeds and volumes and reinforce their shared nature through materials and targeted design enhancements.
- Bulb-outs would be installed at Stevenson Street, 13th Street (southwest corner of the intersection of Folsom Street/13th Street), and on South Van Ness Avenue (northeast corner of South Van Ness Avenue/13th Street). Corner sidewalk bulb-outs would increase the visibility of people walking for drivers, thereby allowing drivers to begin braking farther in advance of the intersection to yield the right-of-way.

Overall, although subsequent development under the Hub Plan would increase the number of people walking on streets, the additional trips would not result in hazardous conditions for people walking. This is because Hub Plan's streetscape improvements would increase pedestrian visibility with bulb-outs and shared street treatments, reduce vehicle speeds at intersections with traffic calming measures, shorten pedestrian crossing distances, and expand

pedestrian connectivity through additional crosswalks and sidewalk enhancements. The Hub Plan's streetscape and street network improvements would serve to accommodate the increase in the number of people walking and would not create potentially hazardous conditions or interfere with accessibility for people walking. Therefore, the impacts of the Hub Plan on people walking would be *less than significant*.

30 VAN NESS AVENUE PROJECT

Access to the 30 Van Ness Avenue Project's residential lobby for people walking would be from Van Ness Avenue, while access to the office lobby would be from Market Street as well as Van Ness Avenue. A potential additional office lobby may be accessed from Fell Street. The proposed ground-floor retail uses would be accessed from both Van Ness Avenue and Market Street.

Adjacent to the project site, sidewalks on Van Ness Avenue would be between 12 and 16 feet, 6 inches wide; sidewalks on Fell Street would be 10 feet wide and would meet the minimum and recommended sidewalk width in the *Downtown Streetscape Plan* (i.e., recommended minimum of 10 feet for a commercial thoroughfare). The 30 Van Ness Avenue Project would include increasing the sidewalk width on Fell Street adjacent to the project site to create a corner bulb-out. At the curb on Van Ness Avenue, the project would provide a 20-foot-long no-parking zone directly south of the crosswalk to increase the visibility of people walking, a 41-foot long commercial loading space, and a 66-foot-long passenger loading zone. The sidewalk on Van Ness Avenue adjacent to the project site would be 16 feet wide. Street trees and planters, a wind sculpture, and bicycle racks would be located within the Van Ness Avenue furniture/curb zone (i.e., the area between the curb and the pedestrians through/walking zone). The Market Street sidewalk adjacent to the project site would not be changed and would remain at 33 feet, 9 inches wide.

Trips by people walking generated by the proposed project would include walking trips to and from the new uses, plus walking trips to and from transit stops on Van Ness Avenue and Market Street. During the weekday p.m. peak hour, the new uses would add about 792 new trips by people walking to the sidewalks and crosswalks in the vicinity of the project site (this includes about 305 trips to and from transit and 487 walking trips). The majority of the new trips by people walking would be between the project site and the transit stops on Market Street or within the Van Ness Avenue median; therefore, most trips by people walking would be added to the Van Ness Avenue sidewalk and crosswalks. The new trips by people walking would not substantially affect the sidewalk or crosswalk conditions in the project vicinity because all adjacent sidewalks would meet *Better Streets Plan* standards and would be of adequate width to accommodate these trips. In addition, the proposed widening of the sidewalk on Fell Street adjacent to the project site would enhance conditions for people walking and accessibility to the site.

The 30 Van Ness Avenue Project would provide a passenger loading/unloading zone on Van Ness Avenue and adequately accommodate people getting into and out of vehicles (see Impact TR-9, below). The 30 Van Ness Avenue Project's garage and loading dock access point would be on Fell Street, which has fewer people walking than on Market Street or on Van Ness Avenue. During the p.m. peak hour, vehicles entering and exiting the project garage are expected to arrive approximately one per minute (58 vehicles total) and two per minute (124 vehicles total), respectively. All three vehicles should be able to make their ingress or egress movement in that minute and people would be able to walk past the garage entrance without obstruction. The proposed garage would include visual and audible signals to alert passing drivers and people walking of an approaching exiting vehicle. Therefore, for the reasons described above, these project features would not result in potentially hazardous conditions to people walking along Van Ness Avenue or Fell Street and would not interfere with accessibility to the project site.

Overall, although the addition of project-generated trips by people walking would increase the volume of people walking on adjacent streets, the additional trips would not substantially affect the flow of people walking, and the project's streetscape changes and additional vehicle trips generated by the proposed land uses would not create potentially hazardous conditions or interfere with accessibility for people walking. Therefore, the 30 Van Ness Avenue Project's impacts on people walking would be *less than significant*.

98 FRANKLIN STREET PROJECT

Access to the 98 Franklin Street Project's residential lobby for people walking would be from Oak Street, while access to the school lobby would be from Franklin Street. The proposed ground-floor retail uses would be accessed from Oak Street.

Adjacent to the project site, sidewalks on Oak Street are currently 15 feet wide but would be widened at the intersection of Franklin Street/Oak Street to 27 feet for a distance of approximately 55 feet. Sidewalks adjacent to the project site on Franklin Street are currently 9 feet wide but would be widened to 12 feet. In addition, at the intersection of Franklin Street/Oak Street, they would be widened an additional 8 feet for a total sidewalk width of approximately 20 feet. The proposed sidewalk widths would meet the minimum and recommended sidewalk widths in the *Better Streets Plan* (minimum width of 12 feet and recommended width of 15 feet for a commercial thoroughfare).

The proposed widening of the sidewalk on both Oak and Franklin streets at the southeast corner of the intersection of Franklin Street/Oak Street (i.e., adjacent to the project site) would enhance conditions and accessibility for people walking to the site. At the intersection of Franklin Street/Oak Street, continental crosswalks are provided on the east, west, and south legs of the intersection; however, the crossing of the north leg is closed to people walking to facilitate the vehicular left-turn movement (i.e., the three eastbound turn lanes) from eastbound Oak Street to northbound Franklin Street. The wider sidewalks at the corner would

provide an additional area for people waiting to cross the south leg of the intersection. In addition, street trees on Franklin Street adjacent to the project site would be placed at least 25 feet south of the crosswalk to provide greater visibility of people walking by drivers on northbound Franklin Street.

New project-generated trips by people walking would include walking trips to and from the new uses as well as walking trips to and from transit stops. During the weekday p.m. peak hour, the new uses would add 166 new trips by people walking to the sidewalks and crosswalks in the vicinity of the project site (this includes about 71 trips to and from transit and 95 walking trips). In addition, existing trips by the 380 students who would be relocated from the existing school at 150 Oak Street to the new high school would be redistributed near the project site. For example, students walking along Oak Street from Van Ness Avenue would no longer cross Franklin Street to access the high school, while students arriving from the west would continue past the existing school and cross Franklin Street to access the project site. In addition, because drop-off and pickup of students by vehicle would continue to occur at the existing passenger zones on Oak and Hickory streets between Franklin and Gough streets, these students would now cross at the intersection of Franklin Street/Oak Street to access the new high school. The high school would deploy traffic crossing guards for all ways of travel (e.g., walking, bicycling, driving, skateboards, and scooters) on Franklin and Oak streets during school hours.

The majority of the new trips by people walking would be between the project site and the transit stops on Market Street or within the Van Ness Avenue median; therefore, trips by people walking would be added to both Franklin and Oak streets. The new trips by people walking would be accommodated on the wider sidewalks adjacent to the project site and would not substantially affect sidewalk or crosswalk conditions near the project site.

The 98 Franklin Street Project would provide a passenger loading/unloading zone on Oak Street and adequately accommodate people getting into and out of vehicles (see Impact TR-9, below). As noted above, drop-off and pickup for the high school students would continue to occur at the existing passenger zones on Oak and Hickory streets between Franklin and Gough streets. A short passenger loading/unloading zone accommodating one vehicle would be provided on Franklin Street per SFMTA recommendation; however, this zone would not be used for drop-off and pickup operations for the school, and instead would supplement the primary passenger loading zone on Oak Street. The 98 Franklin Street Project garage access would be on Franklin Street, which has fewer people walking on it than Oak Street. These 98 Franklin Street Project features would not result in potentially hazardous conditions for people walking on Franklin or Oak streets and would not interfere with accessibility to the project site.

Overall, although the addition of project-generated trips by people walking would increase the volume of people walking on adjacent streets, the additional trips would not substantially affect the flow of people walking, and the project's streetscape changes and additional vehicle

trips generated by the proposed land uses would not create potentially hazardous conditions or interfere with accessibility for people walking. Therefore, the 98 Franklin Street Project's impacts on people walking would be *less than significant*.

Impact TR-7. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility. (Less than Significant)

HUB PLAN

Subsequent development associated with the Hub Plan would generate about 11,483 trips made by bicycling, walking, or other non-motorized ways of travel during the p.m. peak hour.⁶¹ The new bicycle trips, which are a subset of this number, would use the existing system of bicycle routes and bicycle lanes. Within the transportation study area, bicycle lanes are currently provided on Market, Mission/Otis, McCoppin, Valencia, McAllister, Grove, Polk, 11th, Howard, Folsom streets for travel within and through the area. Features of subsequent development projects affecting the transportation network (e.g., driveway access, streetscape changes) would be required to undergo preliminary review with the department's Street Design Advisory Team (SDAT) as part of the project's environmental review application. In addition, streetscape changes would be required to undergo further review by SFMTA's TASC, along with other City agencies.

The Hub Plan streetscape and street network improvements include adding new protected bikeways on 13th Street and Duboce Avenue between Valencia and Folsom streets to enhance bicycle circulation and safety and improve connections with intersecting bicycle facilities on Folsom, Howard, and Valencia streets. In both the eastbound and westbound directions, new protected bikeways would be provided on 13th Street between Folsom and Mission streets and on Duboce Avenue between Mission and Valencia streets. In addition, the signal at the intersection of Otis Street/Mission Street/Duboce Avenue/13th Street would be revised to separate westbound vehicles and people bicycling from 13th Street to Duboce Avenue from vehicles exiting the Central Freeway off-ramp at Mission Street and continuing westbound onto Duboce Avenue.

The other Hub Plan streetscape and street network improvements primarily include features to enhance the streetscape and street network for people walking, such as wider sidewalks, bulb-outs, traffic islands, signals for people walking, changes to curb vehicular parking and loading, special paving, raised crosswalks, and midblock intersections. These types of street network improvements would increase visibility of people walking by drivers and bicyclists and reduce vehicle speeds, as appropriate; would be designed to accommodate bicyclists; and would also

⁶¹ Other nonmotorized ways of travel include walking and bicycling, as well as use of scooters and skateboards.

enhance conditions for bicycling. For these reasons, the street network improvements would not create hazardous conditions for people bicycling. Raised crosswalks and intersections would be provided primarily in alleys within the Hub Plan area, which have slower travel speeds and do not have dedicated bicycle facilities, and would be designed consistent with the *Better Streets Plan* to safely accommodate people bicycling. Proposed travel lane changes on 12th and Stevenson streets as well as South Van Ness Avenue would not interfere with bicycle accessibility in the area because there are no bicycle facilities on these street segments, and bicyclists would continue to have access to these streets. Thus, the Hub Plan streetscape and street network improvements would not create hazardous conditions for people bicycling or interfere with bicycle accessibility in the area.

As discussed above, subsequent development under the Hub Plan (i.e., not including individual development projects at 30 Van Ness Avenue and 98 Franklin Street) would generate new bicycle trips that would use the existing system of bicycle routes and bicycle lanes for travel within and through the transportation study area. The Hub Plan's streetscape and street network change would complete protected facilities on 13th Street. The streetscape and street network improvements would be designed consistent with *Better Streets Plan* standards to accommodate all ways of travel, and, as noted above, would be required to undergo further design review by SFMTA and other City agencies. Implementation of the Hub Plan streetscape and street network improvements on Duboce Avenue and 13th Street between Valencia and Folsom streets would provide a higher level of security for people bicycling by physically separating people bicycling from vehicular traffic. These and other Hub Plan streetscape and street network improvements would not create hazardous conditions for people bicycling or interfere with bicycle accessibility in the area for the reasons discussed above. Thus, for the reasons described above, the impacts of the Hub Plan on people bicycling would be *less than significant*.

30 VAN NESS AVENUE PROJECT

The 30 Van Ness Avenue Project would provide a total of 301 class 1 and 48 class 2 bicycle parking spaces. Of the 301 class 1 bicycle parking spaces, there would be 228 spaces for the residential uses, 70 spaces for the office uses, and three spaces for the retail uses. The 301 class 1 bicycle parking spaces would be provided within secure bicycle parking rooms in the basement and ground-floor levels, which would be accessed from the outside via the ground-floor entries on Van Ness Avenue and Market Street. The 76 class 2 bicycle parking spaces would be provided within 16 bicycle racks (i.e., 32 bicycle parking spaces) on Van Ness Avenue and 22 bicycle racks (i.e., 44 bicycle spaces) on Market Street, subject to SFMTA approval. In addition, the measures that would be implemented as part of the 30 Van Ness Avenue Project to comply with the TDM ordinance would also facilitate bicycling.

The project site is within convenient bicycling distance of residential and commercial uses in the surrounding neighborhoods, and is expected to generate 38 bicycle trips during the p.m. peak hour. The majority of project-generated trips would be made by walking, bicycling, or using

transit or non-motorized ways of travel (about 76 percent during the weekday p.m. peak hour); the number of vehicle trips to and from the project site that could conflict with bicycle travel would be limited (e.g., 182 vehicle trips during the p.m. peak hour).

There are bicycle routes in the project vicinity, including bicycle lanes on Polk, Market, and 11th streets. Neither Van Ness Avenue nor Fell Street includes designated bicycle facilities. The 30 Van Ness Avenue Project would not include any curb cuts on either Van Ness Avenue or Market Street. Curbside commercial and passenger loading/unloading would occur on Van Ness Avenue and Fell Street and not on Market Street where there is a westbound bicycle lane adjacent to the project site. Proposed garage and loading access driveways on Fell Street would not create a new hazard or conflict with bicycling or bicycle accessibility because they would be designed consistent with *Better Streets Plan* standards to accommodate all ways of travel, including providing adequate turning radii into and out of the project site and sight distances. In addition, bicyclists would be able to travel eastbound on Fell Street similar to existing conditions.

Overall, although the 30 Van Ness Avenue Project would result in an increase in the number of vehicles and bicycles in the vicinity of the project site, this increase would not be substantial enough to affect bicycle travel or facilities in the area, create potentially hazardous conditions for people bicycling, or interfere with bicycle accessibility; therefore, for the above reasons, the impacts of the 30 Van Ness Avenue Project on people bicycling would be *less than significant*.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Project would provide a total of 489 class 1 and 50 class 2 bicycle parking spaces. Of the 489 class 1 bicycle parking spaces, 345 bicycle parking spaces would be for the residential uses, and 144 bicycle parking spaces would be for the school uses. All class 1 bicycle parking would be provided within basement level 1 and accessed from a separate ramp adjacent to the vehicular access ramp or the elevators in the residential and school building lobbies. A total of 50 class 2 bicycle parking spaces would be provided within 27 bicycle racks on Franklin and Oak streets, subject to SFMTA approval. In addition, the measures that would be implemented as part of the 98 Franklin Street Project to comply with the TDM ordinance would also facilitate bicycling.

The project site is within convenient bicycling distance of residential and commercial uses in the surrounding neighborhoods. As such, it is anticipated that the proposed project would generate seven bicycle trips during the p.m. peak hour (**Table 3.B-10**, p. 3.B-51). The majority of project-generated trips would be made by walking, bicycling, or using transit or non-motorized ways of travel (about 70 percent during the p.m. peak hour), and, therefore, the number of vehicle trips generated by the proposed project that could conflict with bicycle travel would be limited (e.g., 49 vehicle trips during the p.m. peak hour).

As described above, there are bicycle routes in the project vicinity, including bicycle lanes on Market, Polk, 11th, and Valencia Grove streets. Neither Franklin Street nor Oak Street is a designated bicycle facility. The proposed garage and loading access driveway on Franklin Street and the streetscape improvements on Franklin, Oak, and Lily streets would not create a new hazard or conflict with bicycling or bicycle accessibility because streetscape and street network improvements would be designed consistent with *Better Streets Plan* standards to accommodate bicycle travel, and because bicyclists would continue to be able to travel on these streets similar to existing conditions.

Overall, although the 98 Franklin Street Project would result in an increase in the number of vehicles and bicycles in the vicinity of the project site, this increase would not be substantial enough to affect bicycle travel or facilities in the area, create potentially hazardous conditions for people bicycling, or interfere with bicycle accessibility; therefore, for the above reasons, impacts of the 98 Franklin Street Project on people bicycling would be *less than significant*.

Impact TR-8. The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking. (Significant and Unavoidable)

Subsequent development projects under the Hub Plan would generate commercial and passenger loading demand that would need to be accommodated onsite (i.e., truck loading spaces, per planning code requirements) and/or within on-street curb loading spaces (i.e., yellow loading zones for commercial vehicles and white loading zones for passenger vehicles). With the proposed Hub Plan's rezoning and planning code changes, subsequent development projects within the Hub Plan area with more than 100,000 square feet of residential, commercial office, retail, and/or industrial uses would be required to develop and implement a Driveway and Loading Operations Plan (DLOP) to address project-generated commercial and passenger loading issues. The DLOP would require that offsite loading activity is considered in the design of new buildings. Applicable projects would prepare the DLOP in accordance with guidelines issued by the department, and the DLOP would be reviewed and approved by the department, in consultation with the SFMTA. Therefore, considering the DLOP requirements, it is anticipated that the majority of subsequent development projects under the Hub Plan would be able to provide onsite and/or on-street loading facilities to accommodate loading demand from commercial vehicles and passenger vehicles, and would not result in significant loading impacts. However, it is possible that some development sites and surrounding roadways may restrict the new curb cuts (e.g., along Market Street) and/or on-street commercial loading or passenger loading spaces may not be possible to provide, and existing spaces may not be located so as to accommodate the new demand. It is possible that an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading

spaces, particularly for larger buildings that could be developed under the Hub Plan, could disrupt circulation for transit, vehicles, people walking and people bicycling, and create potentially hazardous conditions.

The Hub Plan streetscape and street network improvements would not substantially change the existing on-street commercial loading supply within the parking and loading study area. There would be a net increase of five commercial loading spaces and four passenger loading spaces. On Rose Street between Gough and Franklin streets, and on Brady Street between Colton and Otis streets, new flexible commercial and passenger vehicle loading zones would be added. Some streetscape and street network improvements would include removal of on-street vehicular parking on some blocks, which may restrict the creation of new on-street commercial and/or passenger loading zones. Therefore, in some instances, subsequent development under the Hub Plan, even with preparation of a project-specific DLOP, may result in an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading spaces, which could disrupt circulation for transit, vehicles, people bicycling, and people walking and create potentially hazardous conditions. Given the above, it is conservatively determined that implementation of the Hub Plan would result in *significant impacts* with respect to commercial and passenger loading within the Hub Plan area.

MITIGATION MEASURES

There is no feasible mitigation available to reduce this impact.

SIGNIFICANCE AFTER MITIGATION

Impacts of the Hub Plan on commercial and passenger loading would be *significant and unavoidable*.

Impact TR-9. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would accommodate commercial vehicle and passenger loading demand. (Less than Significant)

30 VAN NESS AVENUE PROJECT

The 30 Van Ness Avenue Project proposes a street-level loading dock that would accommodate three truck loading spaces (two 12 feet wide and 35 feet in length and one 10 feet wide and 25 feet in length) and three service vehicle loading spaces (8 feet wide and 20 feet in length). The loading dock would be accessed from Fell Street. Trash, recycling, and compost would be stored in separate bins within the loading dock area. In addition, the 30 Van Ness Avenue project sponsor would request accommodation of both commercial and passenger loading at Van Ness Avenue adjacent to the project site, and commercial loading on Fell Street adjacent to the project site. On Van Ness Avenue, the project sponsor would request one 41-foot-wide on-street commercial loading space and a 106-foot-wide passenger loading zone; on Fell Street, the

project sponsor would request one commercial loading space. In addition, as part of the proposed project, an existing accessible vehicular parking space would be relocated from Van Ness Avenue to Fell Street. The passenger loading zone, which would be in effect all day, would accommodate taxis and TNC vehicles as well as private vehicles. The proposed on-street commercial spaces and passenger loading zones would require approval at a public hearing through SFMTA. Preliminary review of the proposed design and changes to the on-street curb regulations during the department's SDAT review, including with SFMTA Color Curb Program staff members, did not identify concerns with the proposed zones and confirmed that the proposed on-street curb regulations are consistent with SFMTA policy.

The Hub Plan's proposed planning code changes would include a requirement for subsequent development projects that provide more than 100,000 square feet of residential, commercial, or industrial uses to prepare and implement a Driveway and Loading Operations Plan and a Passenger Loading Plan. These related plans would specify how deliveries to the building as well as passenger loading/unloading activities would be accommodated within onsite and/or on-street loading spaces in such a way that would not result in conflicts with people bicycling, people walking, or vehicles on streets adjacent to project sites. The 30 Van Ness Avenue Project would be subject to this requirement.

- The 30 Van Ness Avenue Project would generate 142 delivery-/service-vehicle trips per day, which corresponds to a demand for eight loading spaces during the peak hour of loading activity. This loading demand would be accommodated within the proposed six onsite loading spaces and two on-street commercial loading spaces.

Residential move-in and move-out activities are anticipated to occur from the onsite truck loading spaces. Trash, recycling, and compost bins, located in the loading dock area, would be accessed from Fell Street.

- The 30 Van Ness Avenue Project would also generate 110 passenger loading instances during the weekday p.m. peak hour, which corresponds to a demand for four passenger loading spaces at the project site. This passenger loading demand would be accommodated within the passenger loading zone on Van Ness Avenue (accommodating two or three vehicles) and the two on-street commercial loading spaces on Van Ness Avenue and Fell Street because private vehicles, taxis, and TNC vehicles would be permitted to stop and load or unload within the commercial loading spaces. Any passenger loading demand not accommodated within the on-street passenger loading zone and commercial loading spaces during the p.m. peak hour may result in double parking on Van Ness Avenue. However, considering that Van Ness Avenue does not have bicycle facilities and that transit would be operating within an exclusive center median (i.e., the Van Ness BRT Project) and not within the two travel lanes adjacent to the project site, the double parking of passenger vehicles adjacent to the project site during the p.m. peak hour would not result in delays to transit, affect bicycle accessibility, or create hazardous conditions.

The proposed onsite and on-street loading facilities for the 30 Van Ness Avenue Project would be enough to accommodate projected demand without creating hazardous conditions for people walking, bicycling, or driving or substantially delaying public transit. Thus, the 30 Van Ness Avenue Project would accommodate its commercial and passenger loading demand. The impacts of the 30 Van Ness Avenue Project related to loading would be *less than significant*.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Project proposes one truck loading space (10 feet wide and 25 feet in length) and two service vehicle loading spaces (8 feet wide and 20 feet in length) within garage/basement level 1, which would be accessed via the garage driveway on Franklin Street. Trash, recycling, and compost would be stored in separate bins onsite within a dedicated area in basement level 1; the bins would be accessed via the garage driveway on Franklin Street. In addition, the project sponsor would request accommodation of one on-street passenger loading space on Franklin Street to support special events at the school and an all-day combined passenger and commercial loading zone for four vehicles on Oak Street to support residential uses. This all-day commercial/passenger loading zone would accommodate private vehicles, taxis, and TNC vehicles. The proposed provision of on-street commercial and passenger loading spaces would require approval at a public hearing through SFMTA. Preliminary review of the proposed design and changes to the on-street curb regulations during the department's SDAT review, including with SFMTA Color Curb Program staff members, did not identify concerns with the proposed zones and confirmed that the proposed on-street curb regulations are consistent with SFMTA policy. In addition, as described above for the 30 Van Ness Avenue Project, the 98 Franklin Street Project would be required to prepare and implement a Driveway and Loading Operations Plan and a Passenger Loading Plan. These related plans would specify how deliveries to the building and passenger loading/unloading activities would be accommodated within onsite and/or on-street loading spaces in such a way that would not result in conflicts with people bicycling, people walking, or vehicles on Franklin and Oak streets.

- The 98 Franklin Street Project would generate about six delivery-vehicle/service-vehicle trips per day, which corresponds to demand for one loading space during the peak hour of loading activity. This loading demand would be accommodated within the three proposed onsite loading spaces and the four proposed shared commercial/passenger loading spaces on Oak Street.

Residential move-in and move-out activities are anticipated to occur from the onsite truck loading spaces. However, larger residential moving trucks would be accommodated on the street on either Franklin or Oak streets by obtaining reserved curbside permits from SFMTA in advance of move-in or move-out activities.

As noted above, trash, recycling and compost bins would be accessed via the Franklin Street garage ramp. For trash/recycling/compost pickup, the property managers would cart the containers from the first basement level up the garage ramp to Franklin Street.

- The 98 Franklin Street Project would generate 23 passenger loading instances during the weekday p.m. peak hour, which corresponds to demand for one passenger loading space at the project site. This passenger loading demand would be accommodated at four proposed combined passenger and commercial loading spaces on Oak Street.

This passenger loading does not include loading associated with school pickup or drop-off activity because the French-American International School would continue to direct families to conduct pickup and drop-off activities in their existing loading zones at 150 Oak Street. Consistent with the school's current drop-off and pickup plan, all students are dropped off or picked up at either the passenger zones on Oak Street between Franklin and Gough streets or on Hickory Street, also between Franklin and Gough streets.

Thus, the proposed onsite and on-street loading facilities for the 30 Van Ness Avenue Project would be sufficient to accommodate the projected demand. Therefore, no secondary impact analysis is necessary. Because the 98 Franklin Street Project would accommodate the commercial and passenger loading demand, impacts of the 98 Franklin Street Project related to loading would be *less than significant*.

Impact TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in a substantial vehicular parking deficit. (Less than Significant)

HUB PLAN

Under existing zoning, subsequent development projects within the Hub Plan area would not be required to provide vehicular parking. Under the proposed Hub Plan zoning changes, vehicular parking controls for residential uses would be changed from the current maximum of 0.5 space per dwelling unit to a new maximum of 0.25 vehicular space per dwelling unit, with no conditional use authorization option. Maximum permitted commercial vehicular parking controls (i.e., 7 percent of occupied floor area)⁶² would not change. The Hub Plan area is within the department's map-based screening area for the VMT analysis; therefore, subsequent land use development projects under the Hub Plan would not result in substantial vehicular parking deficits.

The proposed Hub Plan streetscape and street network improvements would include some removal and reconfiguration of on-street vehicular parking; however, the types of changes qualify as "active transportation rightsizing" (e.g., bikeway on 13th Street, median islands, shared alleys,

⁶² The amount of parking spaces permitted for nonresidential (i.e., commercial) uses is limited to 7 percent of the occupied floor area.

wider sidewalks, raised crosswalks and intersections, special paving, reduction in travel lanes on 13th and Otis streets and on Duboce Avenue) or “other minor transportation project” (e.g., new traffic signal, conversion from one-way to two-way streets, removal of on-street vehicular parking, changes to curb vehicular parking and loading regulations) per the Senate Bill 743 checklist and planning commission resolution 19579, and therefore would not result in a substantial vehicular parking deficit. In total, approximately 135 general on-street vehicular parking spaces would be removed on streets where streetscape and street network improvements are proposed (i.e., 31 vehicle parking spaces within alleys, and 104 vehicle parking spaces on other streets).

Because the Hub Plan, including land use development and streetscape and street network improvements, would not result in a substantial vehicular parking deficit, no secondary impact analysis is necessary. Thus, for the reasons described above, the Hub Plan impacts related to vehicular parking would be *less than significant*.

30 VAN NESS AVENUE PROJECT

The 30 Van Ness Avenue Project would provide 243 vehicular parking spaces for 610 residential units and 371,000 square feet of commercial uses. The 30 Van Ness Avenue Project is within the department’s map-based screening area and therefore would not result in a substantial vehicular parking deficit. Therefore, no secondary impact analysis is necessary. The impacts of the 30 Van Ness Avenue Project related to vehicular parking would be *less than significant*.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street would provide 82 vehicular parking spaces for the 345 residential units and 29 spaces for the school uses. No vehicular parking would be provided for the 3,100 square feet of ground-floor retail uses. The 98 Franklin Street Project is within the department’s map-based screening area and would not result in a substantial vehicular parking deficit. Therefore, no secondary impact analysis is necessary. The impacts of the 98 Franklin Street Project related to vehicular parking would be *less than significant*.

Impact TR-11. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in inadequate emergency access. (Less than Significant)

HUB PLAN

With implementation of the Hub Plan, including subsequent land use development and streetscape and street network improvements, emergency access would remain similar to existing conditions. Subsequent development projects under the Hub Plan would be required to undergo multi-departmental City review so that proposed vehicle access and streetscape improvements do not impede emergency access to the site or surrounding areas.

The proposed Hub Plan transportation network and streetscape improvements would be refined as the design process progresses. As part of that work, a preliminary review would be conducted by SFMTA's TASC and the fire department, along with other City agencies. In general, the proposed street network changes, listed below, would not introduce unusual design features that would substantially change, hinder, or preclude existing emergency access.

- Create a boulevard on South Van Ness Avenue between Mission Street/Otis Street and 13th Street to separate two lanes of vehicular traffic in each direction and form a third local lane with use of a side median. The local lane would be designed to be accessible to emergency vehicles. Implementation of the boulevard would require close coordination with and approval from Caltrans, which manages U.S. 101.
- Change street segments from one-way to two-way travel (i.e., Otis Street between McCoppin/Gough streets and Duboce Avenue/13th Street as well as Stevenson Street between Brady and Gough streets). The changes would not affect ability of emergency service providers to travel on these roadways. Conditions would be similar to conditions on other two-way streets in the area.
- Change alleys through use of raised crosswalks, raised intersections, and special paving; change curb vehicular parking and loading regulations. The width of the roadway would remain the same as under existing conditions. Emergency vehicles would be able to continue to access alleys, shared streets (Stevenson Street, Colusa Place, and Chase Court), and pedestrian-only alleys (Colton Street) as under existing conditions. The design of the raised crosswalks and intersections would be consistent with the *Better Streets Plan's* guidelines to accommodate emergency vehicle travel across the raised segments of the roadway safely.
- Widen sidewalks, open sidewalks, and create sidewalk bulb-outs. This would not affect adjacent travel lanes.

The proposed bikeway and safety improvements for people walking on 13th Street and Duboce Avenue would not affect adjacent travel lanes on 13th Street because adjacent travel lanes would not be affected. On Duboce Avenue, the removal of one of the three existing westbound travel lanes for the one-block segment (approximately 400 feet) of Duboce Avenue between Stevenson and Mission streets would not substantially affect traffic flow or emergency access on this segment because two travel lanes would be provided in each direction. Within the rest of the transportation study area, due to the presence of multiple travel lanes on many transportation study area streets, as well as the presence of bicycle lanes on some streets, vehicles would be able to pull over to the side of the street and provide a clear path when an emergency vehicle with lights and sirens approaches. Emergency vehicles are also permitted to use transit-only lanes (e.g., Market Street, Mission Street, Van Ness Avenue), if needed. Thus, for the reasons described above, the Hub Plan would not result in inadequate emergency access, and emergency access impacts would be *less than significant*.

30 VAN NESS AVENUE PROJECT

The 30 Van Ness Avenue Project would not introduce any design features that would change emergency vehicle travel adjacent to the project site. Emergency access to the 30 Van Ness Avenue project site would remain unchanged compared with existing conditions; access to the site would be from Van Ness Avenue, Market Street, and Fell Street. As part of the proposed 30 Van Ness Avenue Project, the project sponsor would request that passenger and commercial loading zones be located at the curb adjacent to the project site on Van Ness Avenue, which would be available to emergency service providers. Emergency service providers would continue to be able to pull up to the project site as well as other buildings on the project block from both Market and Fell streets, which contain multiple travel lanes. Drivers on these streets would be able to pull over to the side of the street and provide a clear path when an emergency vehicle with lights and sirens approaches. Therefore, the 30 Van Ness Avenue Project would not result in inadequate emergency access. For the reasons described above, the 30 Van Ness Avenue Project's emergency access impacts would be *less than significant*.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Project would not introduce any design features that would change emergency vehicle travel adjacent to the project site. Emergency access to the 98 Franklin Street project site would remain unchanged compared with existing conditions and continue to be from Franklin and Oak streets. The 98 Franklin Street Project's streetscape improvements adjacent to the project site at the intersection of Franklin Street/Oak Street (i.e., sidewalk widening into the adjacent vehicular parking lanes on Oak and Franklin streets) would be designed to maintain fire truck access to the project site as well as other buildings on the block of Oak Street between Franklin Street and Van Ness Avenue. Specifically, the travel lanes adjacent to the project site would have a minimum width of 20 feet to accommodate emergency vehicles, and emergency vehicles would be able to mount the raised crosswalk across Oak Street on the east leg of the intersection of Franklin Street/Oak Street. Fire department station 36 on Oak Street west of Franklin Street would continue to have eastbound contraflow access on the one-way westbound segment of Oak Street between Franklin Street and Van Ness Avenue, as under existing conditions.

The 98 Franklin Street Project would also implement streetscape improvements on Lily Street between Franklin and Gough streets. These improvements would be made only if the Planning Commission approves an in-kind fee waiver for the cost of the improvements and such improvements are approved by public works. The streetscape improvements would include raised crosswalks at the Franklin Street and Gough Street ends of the alley as well as a midblock raised intersection. In addition, high-quality roadway paving, bollards, and lighting for people walking would be installed. The design of the raised crosswalks and midblock intersection would be consistent with *Better Streets Plan* guidelines. The streetscape changes

would be required to undergo review by SFMTA's TASC and the fire department, along with other City agencies. Therefore, the 98 Franklin Street Project would not result in inadequate emergency access. For the reasons described above, the 98 Franklin Street Project's emergency access impacts would be *less than significant*.

CUMULATIVE IMPACTS

The geographic context for the analysis of cumulative transportation impacts includes the sidewalks and roadways within the transportation study area. The discussion of cumulative transportation impacts assesses the degree to which the proposed project would affect the transportation network, in conjunction with overall citywide growth and other reasonably foreseeable projects, pursuant to CEQA Guidelines section 15355. The assessment of cumulative transportation conditions was based on planned transportation network changes, projected citywide land use changes, and associated changes in travel demand by 2040.

Impact C-TR-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts. (Significant and Unavoidable with Mitigation)

Construction associated with subsequent development under the Hub Plan, as well as the Hub Plan streetscape and street network improvements and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, may overlap with construction of other land development and public infrastructure projects within the transportation study area, although the extent of overlap for the majority of these projects cannot be determined at this time. Subsequent development under the Hub Plan would occur over time as individual projects are proposed and approved. Development projects, including those at 10 South Van Ness Avenue, 30 Otis Street, and 1500–1540 Market Street, that are currently approved, proposed, or under construction may be under construction at the same time as the proposed 30 Van Ness Avenue Project and 98 Franklin Street Project, and therefore, construction activities in the area may partially overlap. Although the scope of construction associated with the Hub Plan streetscape and street network improvements would be limited, generally lasting less than one year for most projects, the duration of construction for the Better Market Street Project would be substantially longer. Construction of the Better Market Street Project would be conducted in phases between Octavia Boulevard and Steuart Street over a period of six to 14 years, depending on the availability of funding. These construction activities would result in substantial disruptions for transit, people walking, and people bicycling along and near the Market Street corridor. Overall, localized cumulative construction-related transportation impacts could occur as a result of projects that either increase construction traffic at the same

time and on the same roads as other land development projects or overlap public infrastructure projects that, because of construction-generated traffic, reduce the number of travel lanes on the local roadway network and increase the number of construction-related vehicle trips.

Given the magnitude of projected development and transportation/streetscape projects within the transportation study area, as well as the uncertainty concerning construction schedules, cumulative construction activities could result in multiple travel-lane closures, high volumes of trucks, and sidewalk closures, which, in turn, could disrupt or delay transit, people walking, or people bicycling or result in potentially hazardous conditions (i.e., high volumes of trucks turning at intersections). Despite the best efforts of the project sponsors and project construction contractors, it is possible that simultaneous construction of other projects could result in significant disruptions for transit, people walking, and people bicycling, even if each individual project alone would not result in significant impacts. In some instances, depending on construction activities, overlapping construction of two or more projects may not result in significant impacts. However, for conservative purposes, given the concurrent construction of multiple buildings and transportation projects in the transportation study area, some in proximity to each other; the expected intensity and duration; and the likely impacts on transit, people bicycling, and people walking, cumulative construction-related transportation impacts would be considered significant. As discussed in Impact TR-1, implementation of the Hub Plan would result in significant transportation-related construction impacts under baseline-plus-project conditions; therefore, the Hub Plan would contribute considerably to significant cumulative construction-related transportation impacts. In addition, construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which would be in proximity to each other, would occur at the same time as construction of other development projects and contribute considerably to significant cumulative construction-related transportation impacts. This would be a significant impact.

MITIGATION MEASURES

Mitigation Measure M-TR-1, presented in Impact TR-1 above, addresses the potential for project overlap with other development and infrastructure projects. Because the 30 Van Ness Avenue Project and the 98 Franklin Street Project could overlap with construction of other approved and proposed projects and could contribute to significant cumulative construction-related transportation impacts, Mitigation Measure M-TR-1 would be applicable to these projects.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure M-TR-1 would minimize but would not eliminate significant cumulative impacts related to conflicts between construction activities and people walking and people bicycling, transit vehicles, and other vehicles. Other measures, such as

imposing sequential (i.e., non-overlapping) construction schedules for all projects in the vicinity, were considered but deemed infeasible because of potentially lengthy delays in project implementation. Therefore, construction of subsequent development under the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in San Francisco, would contribute considerably to cumulative construction-related transportation impacts, which would remain *significant and unavoidable with mitigation*.

Impact C-TR-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not cause substantial additional VMT or substantially induce automobile travel. (Less than Significant)

VMT by its very nature is largely a cumulative impact. Past, present, and future projects might cause people to drive and contribute to the physical secondary environmental impacts associated with VMT; however, it is likely that no single project by itself would be large enough to prevent the region or state from meeting its VMT reduction goals. Project-level thresholds for VMT and induced automobile are based on levels at which new projects are not anticipated to conflict with state and regional long-term targets regarding reductions in greenhouse gas and statewide targets set in 2020 regarding reductions in VMT per capita.

Daily VMT per capita for 2040 cumulative conditions without and with implementation of the Hub Plan were projected using a SF-CHAMP model run, developed with the same methodology outlined for baseline conditions but including residential and job growth estimates from identified and anticipated development projects through 2040 and the reasonably foreseeable transportation investments that are expected to occur through 2040. As shown on **Table 3.B-11**, p. 3.B-64, the projected VMT per capita and per employee under 2040 cumulative conditions for the TAZs in the Hub Plan area, including the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would be more than 15 percent below the regional average for the San Francisco Bay Area. Furthermore, as discussed in Impact TR-3, the Hub Plan would be consistent with the region's Sustainable Communities Strategy. Development under the Hub Plan, including the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in substantial additional VMT, and there would be no significant cumulative impact. Therefore, the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects, would result in *less-than-significant* cumulative impacts related to VMT.

Impact C-TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to traffic hazards. (Less than Significant)

Several transportation network projects are currently under way or planned that would enhance the transportation network in the transportation study area, particularly for people walking and people bicycling. These projects are described in **Table 3-2**, p. 3-17, and include the Better Market Street Project, Sixth Street Pedestrian Safety Project, Seventh Street Road Diet, Market and Octavia Plan, Hub Plan, Civic Center Plan, and Central SoMa Plan, among others not listed above. Other projects, including the Hub Plan streetscape and street network improvements, would be designed to meet City standards. Other development projects proposing street changes in the area would be subject to these requirements as well. Similar to the proposed project, these street changes would be designed consistent with City policies and design standards, including the *Better Streets Plan*, and would not result in significant cumulative impacts related to traffic hazards. Therefore, the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects, would result in *less-than-significant* cumulative impacts related to traffic hazards.

Impact C-TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative transit impacts. (Less than Significant)

Transportation network projects currently under way or planned that would enhance transit operations in the transportation study area include Muni Forward and the Better Market Street Project, in addition to those that would be completed by 2020, such as the Van Ness BRT Project and other Muni Forward projects. These projects would implement or enhance transit-only lanes on Van Ness Avenue and Market and Mission streets, thereby reducing conflicts between private vehicles and transit vehicles and improving transit vehicle travel times on those streets.

The Better Market Street Project includes multiple elements to improve transit operations along the Market Street project corridor. These include Muni-only lanes, private vehicle access restrictions, modifications to transit stop spacing, new transit stops, minor service changes, expansion of transit boarding islands, and a new F Market & Wharves historic streetcar loop, among others. The transit analysis conducted for the Better Market Street Project EIR did not identify any significant cumulative impacts on Muni or regional routes operating along Market Street or on streets crossing the Market Street project corridor within the Hub Plan transportation study area for either the proposed Better Market Street Project or Western Variant.⁶³

⁶³ City and County of San Francisco, *Better Market Street Draft EIR*, February 2019, Case No. 2014.00126ENV.

Table 3.B-13 presents the results of the transit travel-time analysis conducted as part of this EIR for eight Muni routes under 2040 cumulative weekday p.m. peak-hour conditions (i.e., with the Hub Plan included). The table presents headways for routes under 2040 cumulative conditions (i.e., with implementation of the Muni Forward service changes approved for implementation by 2040), the significance threshold applicable to each route, and the transit travel-time changes from the 2020 baseline conditions. The 2040 cumulative transit operations analysis accounts for increased vehicular traffic within the transportation study area as well as increased transit ridership due to anticipated land use changes by 2040. As shown in **Table 3.B-13**, under 2040 cumulative conditions, transit travel times would increase along all routes compared with 2020 baseline conditions; however, these transit delays would not exceed the threshold of four minutes or half the headway applicable to each route and therefore would not result in significant cumulative impacts on these routes.

TABLE 3.B-13. MUNI TRANSIT OPERATIONS ANALYSIS – 2040 CUMULATIVE CONDITIONS – WEEKDAY P.M. PEAK HOUR

Route/Direction ^a	2040 Cumulative Headways (min:sec)	Threshold (half a headway or four minutes, whichever is less)	Travel Time Change from 2020 Baseline Conditions (min:sec)
5 Fulton – inbound	9:00	4:00	2:57
5 Fulton – outbound	9:00	4:00	1:32
5R Fulton Rapid – inbound	6:00	3:00	0:35
5R Fulton Rapid – outbound	6:00	3:00	0:40
9 San Bruno – inbound	12:00	4:00	2:07
9 San Bruno – outbound	12:00	4:00	0:30
9R San Bruno Rapid – inbound	8:00	4:00	0:05
9R San Bruno Rapid – outbound	8:00	4:00	0:03
14 Mission – inbound	15:00	4:00	0:05
14 Mission – outbound	15:00	4:00	0:53
14R Mission Rapid – inbound	8:00	4:00	0:08
14R Mission Rapid – outbound	8:00	4:00	0:07
19 Polk – inbound	10:00	4:00	0:03
19 Polk – outbound	10:00	4:00	0:03
21 Hayes – inbound	9:00	4:00	1:53
21 Hayes – outbound	9:00	4:00	2:08

Source: SFMTA, Fehr & Peers, 2019.

^a Inbound direction generally means headed toward downtown San Francisco. It is the opposite of the outbound direction. Routes that do not go downtown have a consistent definition for inbound and outbound. For example, the 19 Polk is defined as heading inbound to the Marina and outbound to Hunters Point.

An objective of the Better Market Street Project is to enhance conditions for transit along Market Street, and therefore, its project elements were designed to not result in potentially hazardous conditions for transit operators. All adjacent development projects are required to comply with the *Better Streets Plan* standards and requirements and, therefore, would not result in potentially hazardous conditions for transit operators. As discussed above in Impact TR-5, the Hub Plan's streetscape and street network improvements would not include any features that would result in potentially hazardous conditions for transit operators.

SFMTA is currently conducting a Station Capacity Study at the Van Ness station. The study aims to evaluate existing and future passenger demand and capacity needs at the station, and recommend any needed physical improvements to increase the capacity of platforms, stairwells, and escalators in response to anticipated future growth in the number of riders at the station. In an ongoing study, SFMTA is considering the following improvements: building additional platform-to-mezzanine stairwells, widening existing platform-to-mezzanine stairwells, and pulling trains to the end of the platform so that passenger boarding/alighting can occur in areas where there is more space. Therefore, for the above reasons, implementation of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other reasonably foreseeable development projects and transportation changes anticipated by 2040, would result in *less-than-significant* cumulative transit impacts.

Impact C-TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts on people walking. (Less than Significant)

Several projects have been implemented, or are currently proposed, to enhance walking conditions within the transportation study area, described in **Table 3-2**, p. 3-17. Projects that include improvements to the street network for people walking are contained within the Better Market Street Project, Central SoMa Plan, Western SoMa Community Plan, Market and Octavia Area Plan, and the Sixth Street Pedestrian Safety Project, among others. Furthermore, as part of Vision Zero, SFMTA has been implementing projects that include sidewalk widening, new traffic signals, leading intervals for people walking at signalized intersections, continental crosswalk striping, corner sidewalk extensions, daylighting (i.e., restrictions on vehicular parking near corners to enhance visibility for people walking and drivers at intersections), and reductions in the number of travel lanes. Upcoming Vision Zero projects include improvements on Sixth, Seventh, Eighth, Folsom, and Howard streets. Development projects within the transportation study area would be required to comply with *Better Streets Plan* requirements.

Within the transportation study area, the proposed Better Market Street Project would generally keep the sidewalk the same width as under current conditions but add a dedicated sidewalk-level bicycle facility and a buffer and furnishings zone. The intersection of 12th Street/Page

Street/Franklin Street/Market Street would be reconfigured to include a corner bulb-out at the southwest corner. This would shorten the pedestrian crossing distance on Market Street's intersecting side street and increase the visibility of people crossing by placing them in the drivers' line of sight sooner. A new signal would be installed at the intersection of 11th Street/Market Street that would allow for a new marked crosswalk across Market Street where none currently exists. Vehicle access restrictions onto Market Street would reduce the number of vehicles turning across Market Street crosswalks. As part of the Better Market Street Project's Western Variant, sidewalks on both sides of Market Street between 12th and Polk streets would be widened to be between 22 and 26 feet in most locations. The additional sidewalk width would allow more space for people walking and queuing at transit stops. It would also provide additional space around the Muni Van Ness station. The Better Market Street Project's Western Variant would incorporate additional entrances to the Muni Van Ness station as part of future development projects if they are determined to be feasible. The wider sidewalks would reduce the crossing distance for people crossing Market Street at the intersections of Van Ness Avenue/South Van Ness Avenue/Market Street, 12th Street/Market Street, and 10th Street/Polk Street/Fell Street/Market Street. In addition, corner bulb-outs would be provided at the intersections of Valencia Street/Market Street and 12th Street/Market Street, which would also reduce crossing distances, crossing times, and the exposure of people walking to vehicular traffic. At the three intersections of Rose Street/Market Street, Brady Street/Market Street, and 12th Street/Market Street, the Better Market Street Project's Western Variant and the proposed project would provide raised crosswalks on Rose and Brady streets at Market Street. Pedestrian refuge zones between the bikeway and adjacent Muni, paratransit, and taxi lane on Market Street (included as part of the Better Market Street Project) would be provided at the intersections of Van Ness Avenue/South Van Ness Avenue/Market Street, 10th Street/Polk Street/Fell Street/Market Street, and Ninth Street/Larkin Street/Hayes Street/Market Street. These pedestrian refuge zones would provide an additional queuing area and result in people crossing a shorter distance during the walk phase by using the refuge.

The projected vehicular traffic volumes under 2040 cumulative conditions would result in an increase in the number of interactions between vehicles/people walking at intersections in the transportation study area; however, transportation projects such as Better Market Street and the Hub Plan streetscape and street network improvements would reduce this potential for conflicts. In combination with the planned and proposed streetscape and street network improvements under cumulative conditions, these increases in vehicular traffic volumes would not create potentially hazardous conditions for people walking or otherwise interfere with accessibility for people walking. For the reasons described above, significant cumulative walking/accessibility impacts would not occur. Therefore, the Hub Plan and individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in San Francisco, would result in *less-than-significant* cumulative impacts on walking/accessibility.

Impact C-TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative bicycle impacts. (Less than Significant)

Several bicycle projects are currently planned or being proposed, shown in **Table 3-2**, p. 3-17. These include the recently implemented separated bikeway projects on Polk, Valencia, and Eighth streets; planned separated bikeway projects along 11th and Seventh streets; and planned bike lane projects along Fifth Street. The Better Market Street Project proposed new separated bikeways on either side of Market Street between Octavia Boulevard and Steuart Street that would connect with bicycle facilities intersecting Market Street, as well as other bicycle improvements along the corridor. These bicycle projects would enhance cycling conditions in the transportation study area. In addition, the proposed bicycle facilities on Market Street, part of the Better Market Street Project, would connect with recently completed vehicular parking-protected bicycle lanes on upper Market Street between Octavia Boulevard and Duboce Avenue.

Within the transportation study area, the Better Market Street proposed project would place the bikeway on Market Street at sidewalk level, except at select locations between Valencia and 10th streets where the bikeway would be at street level. Two-stage left-turn queue boxes would be provided or improved at the intersections of Market Street with 10th Street/Polk Street, Eighth Street/Grove Street/Hyde Street, and Seventh Street. In addition, a new signal at the intersection of 11th Street/Market Street with a turn cut-out in the sidewalk to allow bicyclists to complete a two-stage turn would be provided, as well as bicycle signals and bikeway guideways to facilitate bicycle turns from westbound Market Street onto southbound 11th Street. The Better Market Street Western Variant would reduce the number of westbound travel lanes between Hayes/Larkin/Ninth streets and 12th Street from two travel lanes to one travel lane; in the eastbound direction, from 12th Street to 11th Street, the number of travel lanes would be reduced from two travel lanes to one travel lane. This would allow for a sidewalk-level bikeway facility in both directions between 11th and 12th streets.

In addition, the intersection of 11th Street/Market Street would be modified under the Better Market Street Western Variant in several ways that would affect bicycle access. The north side of Market Street between Van Ness Avenue and a point approximately 300 feet to the east would be redesigned to provide an expanded sidewalk. People bicycling westbound from 11th Street would be directed to an alternate route on Mission Street and onto westbound Otis Street. In addition, the westbound bicycle left turn from Market Street would be moved from 11th Street to Van Ness Avenue to allow people bicycling to cross Market Street at a perpendicular angle to the streetcar rails. The intersection of 11th Street/Market Street would continue to have a minor stop-sign control. In addition, the Western Variant would include reconfiguration of the intersection at Franklin, Market, and 12th streets in order to incorporate the bicycle-only

connection between Page and Market streets, which would require changes to signal equipment, phasing, and/or timing. This reconfiguration would remove access for vehicles turning from westbound (outbound) Market Street to Franklin or Page streets. In addition, under the Better Market Street Western Variant, 12th Street would change so that northbound vehicles would be forced to turn left onto westbound (outbound) Market Street only.

Although the number of bicycle trips may increase because of land use growth in the transportation study area, transportation projects such as the Better Market Street Project would serve to accommodate the increase in the number of people bicycling. Under 2040 cumulative conditions, the projected increase in the number of vehicles on study area streets, in combination with planned and proposed improvements to the bicycle network and expanded bicycle use, is not anticipated to result in potentially hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility. The bicycle infrastructure projects currently being implemented, planned, or proposed in the transportation study area would accommodate future growth in the number of people bicycling and would not result in significant cumulative bicycle impacts. Therefore, for the above reasons, the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in San Francisco, would result in *less-than-significant* cumulative impacts on people bicycling.

Impact C-TR-7. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts. (Significant and Unavoidable)

Within the transportation study area, numerous transportation and land use projects would affect commercial and passenger loading conditions, shown in **Table 3-2**, p. 3-17. The proposed Better Market Street Project would not result in a substantial change in the number of loading zones along Market Street; however, the existing zones would be reconfigured to sidewalk-level loading zones, and some may be relocated to other blocks within the Market Street corridor. In addition, the number of commercial loading spaces on cross and side streets north and south of Market Street along the Better Market Street project corridor would be increased. The locations for the new on-street commercial loading spaces was based on a review of known projects and street network changes. The on-street commercial loading spaces implemented by the Better Market Street Project would not be eliminated as part of future development projects or street configuration changes. Within the transportation study area, regarding the new loading bays that would be created by the Better Market Street Project, both the proposed project and Western Variant would shorten the bay on the north side of Market Street between 12th Street and Van Ness Avenue, provide four new loading bays between 11th and Eighth streets, and lengthen two and shorten one bay between Ninth and Seventh streets. In addition, the Western Variant would restrict the three loading bays on the north side of Market Street between Hayes and 12th streets to just paratransit vehicles and taxis. As discussed in Impact TR-8, above, under

baseline-plus-project conditions, the Hub Plan streetscape and street network improvements would not substantially modify the existing on-street commercial or passenger loading supply within the transportation study area. Other transportation projects, such as the proposed Civic Center Public Realm Plan and the approved Muni Forward rapid transit network projects, would remove on-street commercial loading and general vehicular parking spaces and could restrict the ability to provide on-street commercial and passenger loading spaces.

Other subsequent land use development projects, including the 18 sites affected by the proposed rezoning under the Hub Plan and other development projects adjacent to the Hub Plan area, would generate both commercial and passenger loading demand. It is anticipated that all or a portion of the commercial loading demand would be accommodated within the development site. However, the cumulative effect of the removal of on-street curb spaces as part of other transportation projects, as described above, may be the inability to provide new on-street commercial and/or passenger loading zones to support loading demand associated with future development. Therefore, subsequent development projects, in combination with other development projects adjacent to the Hub Plan area, may result in an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading spaces, which could result in disruptions to transit vehicles, other vehicles, people bicycling, and people walking and create potentially hazardous conditions. This would be considered a significant cumulative commercial and passenger loading impact.

As described in Impact TR-8, under baseline-plus-project conditions, to the extent that loading demand associated with subsequent development under the Hub Plan is not accommodated onsite or within existing or planned on-street commercial loading spaces, double parking and the illegal use of sidewalks and other public spaces are likely to occur, with associated disruptions for transit vehicles, other vehicles, people bicycling, and people walking, and create potentially hazardous conditions. Thus, for these reasons, the proposed Hub Plan would contribute considerably to significant cumulative commercial and passenger loading impacts. This would be a significant impact.

MITIGATION MEASURES

There is no feasible mitigation available to reduce this impact.

SIGNIFICANCE AFTER MITIGATION

The Hub Plan, in combination with past, present and reasonably foreseeable future projects in San Francisco, would contribute considerably to cumulative loading impacts, which would remain *significant and unavoidable*.

Impact C-TR-8. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not contribute considerably to significant cumulative loading impacts. (Less than Significant)

Commercial vehicle and passenger loading/unloading impacts of development projects are by their nature localized and site-specific impacts and generally do not contribute to impacts from other development projects outside of the project site. As described in Impact TR-9, above, under baseline-plus-project conditions, both the 30 Van Ness Avenue Project and the 98 Franklin Street Project would accommodate their respective commercial and passenger loading demand within onsite loading spaces and within on-street curb loading zones and would not create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay transit. No other development or transportation projects have been identified that would contribute to either commercial vehicle or passenger loading demand or affect supply within or adjacent the project sites. Therefore, the 30 Van Ness Avenue Project and the 98 Franklin Street Project would not contribute considerably to the significant cumulative loading impacts identified in Impact TR-8, above. Thus, because the 30 Van Ness Avenue Project and the 98 Franklin Street Project would not contribute considerably to significant cumulative commercial and passenger loading impacts, the 30 Van Ness Avenue Project's and the 98 Franklin Street Project's contribution to cumulative loading impacts would be *less than significant*.

Impact C-TR-9. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative vehicular parking impacts. (Less than Significant)

Over time, because of the land use development and increased density anticipated within the city, vehicular parking demand and competition for on- and off-street vehicular parking spaces is likely to increase. Within the transportation study area, the development projects projected to occur under the Market and Octavia Plan and the Hub Plan are anticipated to result in a substantial increase in residential development. Some of the new developments in these areas would include new off-street vehicular parking facilities; however, the parking ratios per unit for these developments would be much lower than historical requirements of a minimum of one vehicle parking space per unit. In addition, through implementation of the City's Transit First Policy, Vision Zero, and *Better Streets Plan*; related projects, such as the Better Market Street Project; as well as the streetscape and street network improvements included in the Hub Plan, existing on-street vehicular parking may be further removed to promote alternative ways of travel and sustainable street designs. These projects would encourage transit use through a reduction in transit travel times, encourage bicycle use through the provision of separate bicycle facilities that would offer a higher level of security than bicycle lanes and make them attractive to a wider spectrum of people, and enhance walking conditions.

As discussed in Impact TR-10, under baseline-plus-project conditions, the Hub Plan area is entirely within the department's map-based screening area, and therefore, subsequent land use development projects under the Hub Plan, including the 30 Van Ness Avenue Project and the 98 Franklin Street Project, would not result in substantial vehicular parking deficits.

Although the Hub Plan streetscape and street network improvements would remove some existing on-street vehicular parking, the total amount would be limited (i.e., approximately 135 spaces) and spread out among numerous streets (104 spaces) and alleys (31 spaces) and would not represent a substantial portion of the vehicular parking supply shortfalls that would occur over time. Therefore, considering the location of the Hub Plan area, with its dense pattern of urban development, multiple ways of travel, as well as proposed improvements to the streetscape and street network for transit, people walking and bicycling, a substantial vehicular parking deficit would not occur under cumulative conditions. Therefore, for the above reasons, the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in San Francisco, would result in *less-than-significant* cumulative vehicular parking impacts.

Impact C-TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to emergency access. (Less than Significant)

As discussed in Impact TR-11, above, under baseline-plus-project conditions, with implementation of the Hub Plan, emergency access would remain similar to existing conditions. Subsequent development projects within and adjacent to the Hub Plan area, and the Hub Plan streetscape and street network improvements would not introduce any features that would impede or hinder emergency access. The Better Market Street Project would generally maintain four travel lanes on Market Street, including the proposed Muni-only lanes, to access incidents along the corridor or at other destinations. Within the transportation study area, the Better Market Street proposed project would maintain the existing travel lane configuration between Octavia Boulevard and Van Ness Avenue, while the Western Variant would narrow the roadway width and reduce the number of travel lanes for the segment of Market Street between Larkin/Hayes and 12th streets to one westbound and one eastbound travel lane. However, under both the Better Market Street proposed project and Western Variant, multiple travel lanes would still remain for emergency vehicles to bypass the F Market & Wharves historic streetcar and Muni buses. In addition, this segment is not the part of the primary access routes for the fire department's station 36 (located on Oak Street between Franklin and Gough streets). Other transportation network projects may result in travel lane reductions (e.g., Civic Center Plan street network changes, Seventh Street Road Diet Project); however, multiple travel lanes would be provided on affected streets for drivers to pull over to the side of the street and provide a clear path when an emergency vehicle with lights and

sirens approaches; therefore, the projects would not substantially affect emergency access in the transportation study area. For these reasons, under 2040 cumulative conditions, there would not be significant cumulative impacts related to emergency access. Therefore, for the above reasons, the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in San Francisco, would result in *less-than-significant* cumulative impacts related to emergency access.

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3.C NOISE AND VIBRATION

INTRODUCTION

This section describes the existing noise and vibration environment in the Hub Plan area and evaluates the potential noise and vibration impacts of the Hub Plan,¹ the two individual development projects, and the Hub Housing Sustainability District (HSD) and identifies mitigation measures to avoid or reduce adverse impacts. The City and County of San Francisco (City) received no comments related to noise on the notice of preparation (NOP) (Appendix A) issued for the Hub Plan, the two individual development projects, and the Hub HSD.

ENVIRONMENTAL SETTING

The following section includes an introduction to the key concepts and terms that are used in the evaluation of noise and vibration. The environmental setting of the Hub Plan area and a description of the existing noise and vibration environment are also included below.

NOISE AND VIBRATION DEFINITIONS AND SCALES

A brief description of the noise and vibration concepts and terminology used in this document is summarized below.

- **Sound.** A vibratory disturbance transmitted by pressure waves through a medium such as air or water that is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A measure of sound on a logarithmic scale that indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear. The dBA scale is the most widely used for environmental noise assessment.
- **Ambient.** The lowest sound level repeating itself during a specified period, usually a minimum of a 10-minute period. The minimum sound level is usually determined with the noise source at issue silent and from the same location where the noise level of the source or sources at issue was measured. Under most conditions, the level of noise exceeded 90 percent of the time (L_{90}) is a conservative representation of ambient conditions.

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

- **Maximum Sound Levels (L_{\max}).** The maximum sound level measured during a given measurement period.
- **Equivalent Sound Level (L_{eq}).** The equivalent steady-state sound level containing the same total acoustical energy as a time-varying signal over a given sample period. L_{eq} is typically computed over 1-, 8-, and 24-hour sample periods. The 1-hour A-weighted equivalent sound level (1-hour LA_{eq}) is the energy average of A-weighted sound levels occurring during a 1-hour period.
- **Day-Night Average Sound Level (L_{dn} or LDN).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with a 10 dB penalty added to sound levels between 10 p.m. and 7 a.m.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the sound levels occurring during the period from 7 p.m. to 10 p.m. and 10 dB added to the sound levels occurring during the period from 10 p.m. to 7 a.m. L_{dn} and CNEL are typically within 1 dB of each other and interchangeable for the purposes of this environmental impact report (EIR).
- **Exceedance Level (L_n).** The A-weighted noise levels that are exceeded 1 percent, 10 percent, 50 percent, and 90 percent (L_{01} , L_{10} , L_{50} , L_{90} , respectively) of the time during the measurement period.
- **Root-Mean-Square.** Ground-borne vibration can be quantified by the root-mean-square velocity amplitude. The root-mean-square amplitude is expressed in terms of VdB, a metric that is typically used to assess human annoyance.
- **Vibration Velocity Level (or Vibration Decibel Level, VdB).** The root-mean-square velocity amplitude for measured ground motion expressed in dB.
- **Peak Particle Velocity (PPV).** A measurement of ground vibration, defined as the maximum speed at which a particle in the ground is moving, expressed in inches per second (in/sec).

OVERVIEW OF NOISE

SOUND FUNDAMENTALS

Sound pressure level is the most common descriptor used to characterize the loudness of an ambient sound, and the decibel (dB) scale is used to quantify sound intensity. Because the human ear is not equally sensitive to all sound frequencies within the entire spectrum, human response is factored into sound descriptions in a process called “A-weighting,” expressed as “dBA.” The dBA, or A-weighted decibel, refers to a scale of noise measurement that approximates the range of sensitivity of the human ear to sounds of different frequencies. Because sound can vary in

intensity by more than 1 million times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level by approximating a range of sensitivity that extends from 0 to approximately 140 dBA. A 10 dB increase (in A-weighted decibels) in the level of a continuous noise represents a perceived doubling of loudness. With respect to vehicular traffic noise, a 3 dB increase is barely perceptible to people, while a 5 dB increase is readily noticeable. An increase of less than 3 dB is generally not perceptible outside of controlled laboratory conditions.² Traffic noise typically produces a noticeable increase in noise (i.e., 3 decibels) when there is a doubling of the existing traffic volumes on a roadway.

Noise is generally defined as sound that is loud, disagreeable, unexpected or unwanted. Sound is mechanical energy transmitted in the form of a wave by a disturbance or vibration that causes pressure variation in air detectable by the human ear. Variations in noise exposure over time are typically expressed in terms of a steady-state energy level (called L_{eq}) that represents the acoustical energy of a given measurement or, alternatively, a statistical description of the sound level exceeded during some fraction (10, 50, or 90 percent) of a given observation period (i.e., L_{10} , L_{50} , L_{90}). " L_{eq} (24)" is the steady-state acoustical energy level measured over a 24-hour period. Because many receptors are more sensitive to noise at night, a 24-hour noise descriptor, called the day-night noise level (L_{dn}), adds an artificial 10 dB increment to nighttime noise levels (10 p.m. to 7 a.m.) to add more weight to nighttime noise when calculating average (24-hour) noise levels. **Table 3.C-1** presents representative noise sources and their corresponding noise levels in dBA at varying distances from the noise sources.

Noise may also be described in terms of its tonality. Tonal noise is defined as noise containing a prominent frequency and characterized by a definite pitch. It may be associated with the whine of an industrial fan or the hum emanating from an electricity transformer. A source that emits continuous or, in certain circumstances, intermittent or cyclical tonal noise may disturb sleep or result in other health-related impacts. For tonal noise, a 5 dB penalty is often applied to the noise level.

NOISE FROM MULTIPLE SOURCES

Because the measurement of sound pressure levels in decibels is based on a logarithmic scale, decibels cannot be added or subtracted in the usual arithmetical way. Adding a new noise source to an existing noise source, with both producing noise at the same level, will not double the noise level. For instance, if two identical noise sources each produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. **Table 3.C-2** demonstrates the result of adding noise from multiple sources.

² California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtrcref/ch2.6/2014-12-19_Caltrans_TrafficNoiseAnalysisProtocol_Part1.pdf, accessed July 9, 2018.

TABLE 3.C-1. TYPICAL SOUND LEVELS MEASURED IN THE ENVIRONMENT

Examples of Common, Easily Recognized Sounds	Decibels (dBA)	Subjective Evaluations
Nearby jet engine	140	Deafening
Threshold of pain	130	
Threshold of feeling – hard rock band	120	
Accelerating motorcycle at a few feet away ^a	110	
Loud automobile horn (10 feet away)	100	Very loud
Noisy urban street	90	
Noisy factory	85 ^b	
School cafeteria with untreated surfaces	80	Loud
Near freeway vehicular traffic	60	Moderate
Range of speech	50–60	
Average office	50	
Soft radio music in apartment	40	Faint
Average residence without stereo playing	30	
Average whisper	20	Very faint
Rustle of leaves in wind	10	
Human breathing	5	
Threshold of audibility	0	

Source: U.S. Department of Housing and Urban Development, *The Noise Guidebook*, Chapter 1, Figure 1, p. 1, March 2009, <https://www.hudexchange.info/resource/313/hud-noise-guidebook/>, accessed October 30, 2018.

^a. Fifty feet from motorcycle equals noise at about 2,000 feet from a four-engine jet aircraft.

^b. Continuous exposure above this level is likely to degrade the hearing of most people.

TABLE 3.C-2. RULES FOR COMBINING SOUND LEVELS BY DECIBEL ADDITION

When two decibel values differ by...	...add the following amount to the higher decibel value	Example
0 to 1 dB	3 dB	60 dB + 61 dB = 64 dB
2 to 3 dB	2 dB	60 dB + 63 dB = 65 dB
4 to 9 dB	1 dB	60 dB + 69 dB = 70 dB
10 dB or more	0 dB	60 dB + 75 dB = 75 dB

Source: California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September 2013, http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013A.pdf, accessed: October 5, 2018.

ATTENUATION OF NOISE

Noise attenuates (decreases) with distance. Roadway noise tends to be arranged linearly such that roadway vehicular traffic attenuates at a rate of 3.0 dB to 4.5 dB per doubling of distance from the source, depending on the intervening surface (paved or vegetated, respectively).³ Point sources of noise, such as stationary equipment or construction equipment, typically attenuate at a rate of 6.0 dB to 7.5 dB per doubling of distance from the source.⁴ For example, a sound level of 80 dBA at 50 feet from the noise source will be reduced to 74 dBA at 100 feet, 68 dBA at 200 feet, and so on. Noise levels can also be attenuated by shielding the noise source or providing a barrier between the source and the receptor. With respect to the transmission of exterior noise to interior environments, noise attenuation effectiveness depends on exterior wall insulation, the window sound transmission class rating, and whether windows are closed or open. Sound transmission class ratings indicate how well wall, ceiling, floor, door, or window assemblies attenuate airborne sound. It is not, however, a measure of how many decibels of sound a wall can stop. For example, an exterior wall with a sound transmission class 45 rating does not result in a 45 dB reduction in exterior-to-interior sound transmission. However, generally the higher the sound transmission class rating, the more sound is attenuated.⁵

The age of a structure is not necessarily a reliable predictor of the amount of attenuation an exterior can provide. Residential structures have a wide range of noise reduction due to differences in materials, building techniques, and individual building plans. Typical residential buildings would reduce noise from outside to inside in the range of 24 to 27 dB (with an average of 25 dB) with windows closed and 12 to 18 dB (with an average of 15 dB) with windows open.⁶ Based on the typical residential buildings that exist within San Francisco, an assumption of a 25 dB noise reduction with windows closed and 15 dB noise reduction with windows open is reasonable.⁷

HEALTH EFFECTS OF NOISE

Human sensitivity to noise is generally a function of three measurable physical qualities: loudness, pitch, and duration. The effects of noise are often only transitory, but adverse effects can be cumulative with prolonged or repeated exposure. The health effects of noise can be

³ California Department of Transportation, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013, https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtrcref/ch2.6/2014-12-19_Caltrans_TrafficNoiseAnalysisProtocol_Part1.pdf, accessed July 9, 2018.

⁴ The 1.5 dB variation in attenuation rate (6 dB vs. 7.5 dB) can result from ground-absorption effects, which occur as sound travels over soft surfaces such as soft earth or vegetation (7.5 dB attenuation rate) versus hard ground such as pavement or very hard-packed earth (6 dB rate).

⁵ There is not a straightforward linear relationship between increasing sound transmission class and a reduction of exterior to interior noise because the amount of reduction varies considerably with the frequency range of noise.

⁶ Governor's Office of Planning and Research, *State of California 2017 General Plan Guidelines*, Appendix D: Noise Element Guidelines, page 378, 2017, http://opr.ca.gov/docs/OPR_Appendix_D_final.pdf, accessed May 5, 2019.

⁷ Ibid.

organized into six broad categories: short- and long-term hearing loss; sleep interference; speech/audio interference; interference with communication; various physiological effects, such as pain, increases in heart rate and blood pressure, and increased production of stress hormones; and annoyance. Hearing loss can occur with exposure to high levels of noise (115 dB or more) for periods of 15 minutes or less. Long-term or permanent hearing loss may result from the cumulative effects of exposure to temporary high noise levels. Permissible or acceptable levels of noise exposure, as established by the Occupational Health and Safety Administration, are provided in **Table 3.C-3**.

Sleep disturbance can occur when continuous indoor noise levels exceed 30 dBA or when intermittent interior noise levels reach 45 dBA, particularly if the background noise level is low. Thus, sleep disturbance would not occur with a bedroom window slightly open (a reduction of noise from outside to inside of 15 dB), with exterior continuous (ambient) nighttime noise levels of 45 dBA or less, and exterior short-term noise of 60 dBA or less. Maintaining noise levels within the recommended levels during the first part of the night is believed to be effective for the ability of people to initially fall asleep.

TABLE 3.C-3. PERMISSIBLE NOISE EXPOSURE

Duration per Day (Hours)	Sound Level ^a (dBA, Slow Response) ^b
8	90
6	92
4	95
3	97
2	100
1.5	102
1.0	105
0.5	110
0.25 or less	115

Source: California Department of Transportation, Division of Environmental Analysis, *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, September, 2013.

^a. When the daily noise exposure is composed of two or more periods of noise exposure of different levels, their combined effect should be considered rather than the individual effect of each.

^b. *Slow response* refers to averaging 1-second increments to calculate the L_{eq} of sound levels, as opposed to averaging the 0.125-second increments that occur with fast-response measurements.

The World Health Organization has identified other potential health effects of noise, including decreased performance for complex cognitive tasks, such as reading, problem solving, and memorization; physiological effects, such as hypertension and heart disease; and hearing impairment. Noise can disrupt face-to-face communication and telephone communication as well as the enjoyment of music and television in the home. It can also disrupt effective communication

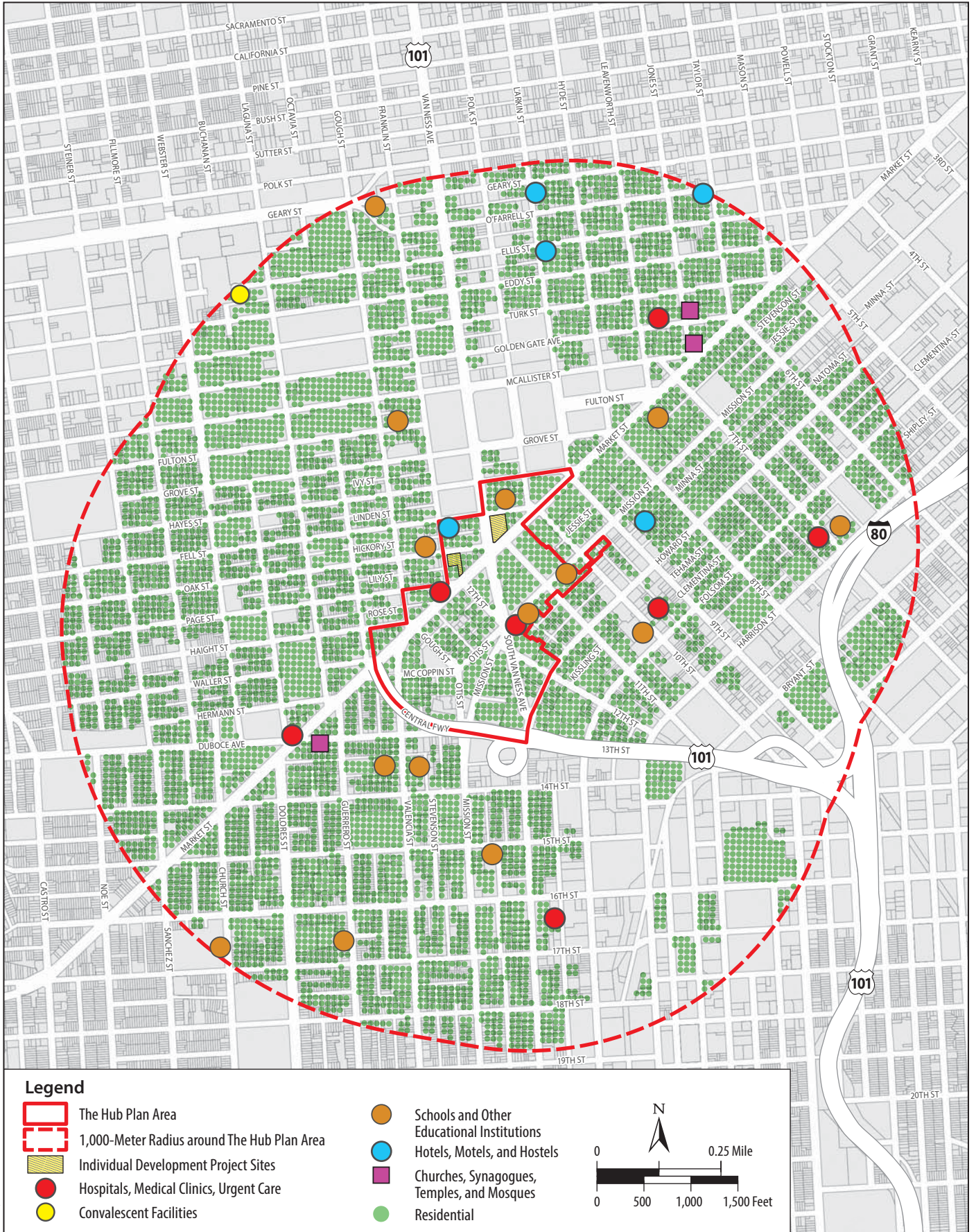
between teachers and pupils in schools and other places, such as theaters, auditoriums, hospitals, or nursing homes, and cause fatigue and vocal strain in those who communicate in spite of the noise.

Finally, noise can cause annoyance and trigger emotional reactions, such as anger, depression, and anxiety. During daytime hours, few people are seriously annoyed by activities with noise levels below 55 dBA, and few people are moderately annoyed with noise levels below 50 dBA. For short-term conditions (such as those occurring over a period of a few hours on a single day or over a period of a few days), such reactions are considered welfare rather than health effects. Were such conditions to persist (such as for construction projects with daily construction activities occurring for a number of hours in a row over a period of many days, many weeks, or longer), the long-term effects of annoyance may be considered a health impact.

NOISE-SENSITIVE RECEPTORS

Some land uses contain receptors that are more sensitive to noise impacts than others. Consistent with the Governor's Office of Planning and Research's *General Plan Guidelines 2017*, noise-sensitive receptors are defined as residential land uses, hospitals, convalescent homes, schools, churches, and sensitive wildlife habitat (e.g., habitat for nesting birds, habitat for marine mammals, as well as habitat for rare, threatened, or endangered species).⁸ In addition, this analysis considers hotels and motels to be noise-sensitive receptors. As noted, sensitivity to noise may vary with the source of noise and land use context. Human reaction to a new noise environment may be predicted by comparing it with the existing ambient noise level. In general, the more a new noise source exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. Existing noise-sensitive land uses in the Hub Plan area, including in the vicinity of the individual development projects, are shown in **Figure 3.C-1** and include residences (mostly multi-family units), hotels or other transient lodging, schools, churches, and childcare facilities.

⁸ Governor's Office of Planning and Research, *State of California 2017 General Plan Guidelines*, p. 136, 2017, http://www.opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf, accessed January 3, 2019.



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Figure 3.C-1
Noise Sensitive Receptors
in the Hub Plan Area and Vicinity

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OVERVIEW OF VIBRATION AND GROUND-BORNE NOISE

VIBRATION AND GROUND-BORNE NOISE

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Construction-related vibration primarily results from the use of impact equipment such as pile drivers (both impact and vibratory), hoe rams, vibratory compactors, and jack hammers, although heavily loaded vehicles may also result in substantial ground-borne vibration. Operations-related vibration results primarily from the passing of trains, buses, and heavy trucks. Vibration is measured by PPV, defined as the maximum instantaneous peak of the vibration signal in inches per second. PPV is the metric typically used to describe vibration from sources that may result in structural stresses in buildings.⁹ Ground-borne vibration can also be quantified by the root-mean-square velocity amplitude, which is useful for assessing human annoyance. The root-mean-square amplitude is expressed in terms of VdB, a metric that is sometimes used in evaluating human annoyance resulting from ground-borne noise and vibration.

The operation of heavy construction equipment, particularly pile-drivers and other heavy-duty impact devices (such as pavement breakers), creates seismic waves that radiate along the surface of the ground and downward. These surface waves can be felt as ground vibration and result in effects that range from annoyance for people to damage to structures. Ground-borne vibration generally attenuates rapidly with distance from the source of the vibration. This attenuation is a complex function of how energy is imparted into the ground as well as the subsurface soil and/or rock conditions through which the vibration is traveling. Variations in geology can result in different vibration levels, with denser soils generally resulting in more rapid attenuation over a given distance. The effects of ground-borne vibration on buildings include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. Ground-borne noise is the rumbling sound generated by the vibration of building surfaces such as floors, walls, and ceilings that radiate noise from the motion of the room surfaces.¹⁰ Ground-borne noise can also occur because of the low-frequency components from a specific source of vibration, such as a rail line.

Vibration traveling through typical soil conditions may be estimated at a given distance by the following formula, where PPV_{ref} is the reference PPV at 25 feet:¹¹

$$PPV = PPV_{ref} \times (25/\text{distance})^{1.5}$$

⁹ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123, 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed December 31, 2018.

¹⁰ Ibid.

¹¹ Ibid.

The background vibration velocity level in residential areas is usually 50 VdB or lower. The vibration velocity level of perception for humans is approximately 65 VdB, and human response to vibration is not usually substantial unless the vibration exceeds 70 VdB.¹² Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, the movement of people, or the slamming of doors. Typical outdoor sources of perceptible ground-borne vibration are heavy construction equipment, steel-wheeled trains, and vehicular traffic on rough roads. Ground-borne noise and vibration are the most significant problems for tunnels that are under residential areas or other noise-sensitive structures.

VIBRATION-SENSITIVE RECEPTORS

Receptors that are sensitive to vibration include structures (especially older masonry structures), older utilities, people (especially residents, the elderly, and the sick), and equipment (e.g., magnetic resonance imaging equipment, high-resolution lithographic, optical, and electron microscopes).¹³ In addition, vibration may disturb nesting and breeding activities for certain biological resources. The primary vibration-sensitive receptors in the Hub Plan area are older structures (potentially susceptible to damage) and people (susceptible to vibration-related annoyance, especially during nighttime hours).

High levels of vibration can damage fragile buildings. Depending on the age and condition of the structure and the type of vibration (transient, continuous, or frequent intermittent sources), vibration levels as low as 0.025 to 0.5 in/sec PPV can damage historic and older buildings.¹⁴

Regarding the potential effects of ground-borne vibration and noise for people, except for long-term occupational exposure, vibration levels rarely affect human health. Instead, most people consider vibration to be an annoyance that can affect concentration or disturb sleep. People may tolerate infrequent, short-duration vibration levels, but human annoyance to vibration becomes more pronounced if the vibration is continuous or occurs frequently.

EXISTING NOISE SOURCES

Ambient noise in urban areas is typically dominated by vehicular traffic on local roadways. The existing ambient noise environment in the Hub Plan area (including in the vicinity of the two individual development projects) is characterized by vehicular traffic traveling on major roadways (such as Market Street, Van Ness Avenue, etc.), San Francisco Municipal Railway

¹² Ibid.

¹³ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*. FTA Report No. 0123, 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed December 31, 2018.

¹⁴ California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, Table 9, p. 23, September 2013, http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf, accessed December 30, 2018.

(Muni) bus and light-rail train activity, and construction activities in the vicinity of the Hub Plan area.

The San Francisco General Plan includes an adopted transportation noise map of the city, based on modeled baseline vehicular traffic volumes derived from the San Francisco County Transportation Authority Travel Demand Model and the Federal Highway Administration (FHWA) Traffic Noise Model.¹⁵ The map indicates the modeled L_{dn} noise on each street in the city. As shown on the map, noise levels from transportation sources along most of the major roadways in the Hub Plan area (Market Street, Franklin Street, Van Ness Avenue, etc.) are in excess of 70 L_{dn} .¹⁶ However, some of the smaller or less-used streets in the Hub Plan area, such as parts of Hickory Street and Otis Street, have lower noise levels that are in the 65 to 70 L_{dn} range.

NOISE MEASUREMENT SURVEY

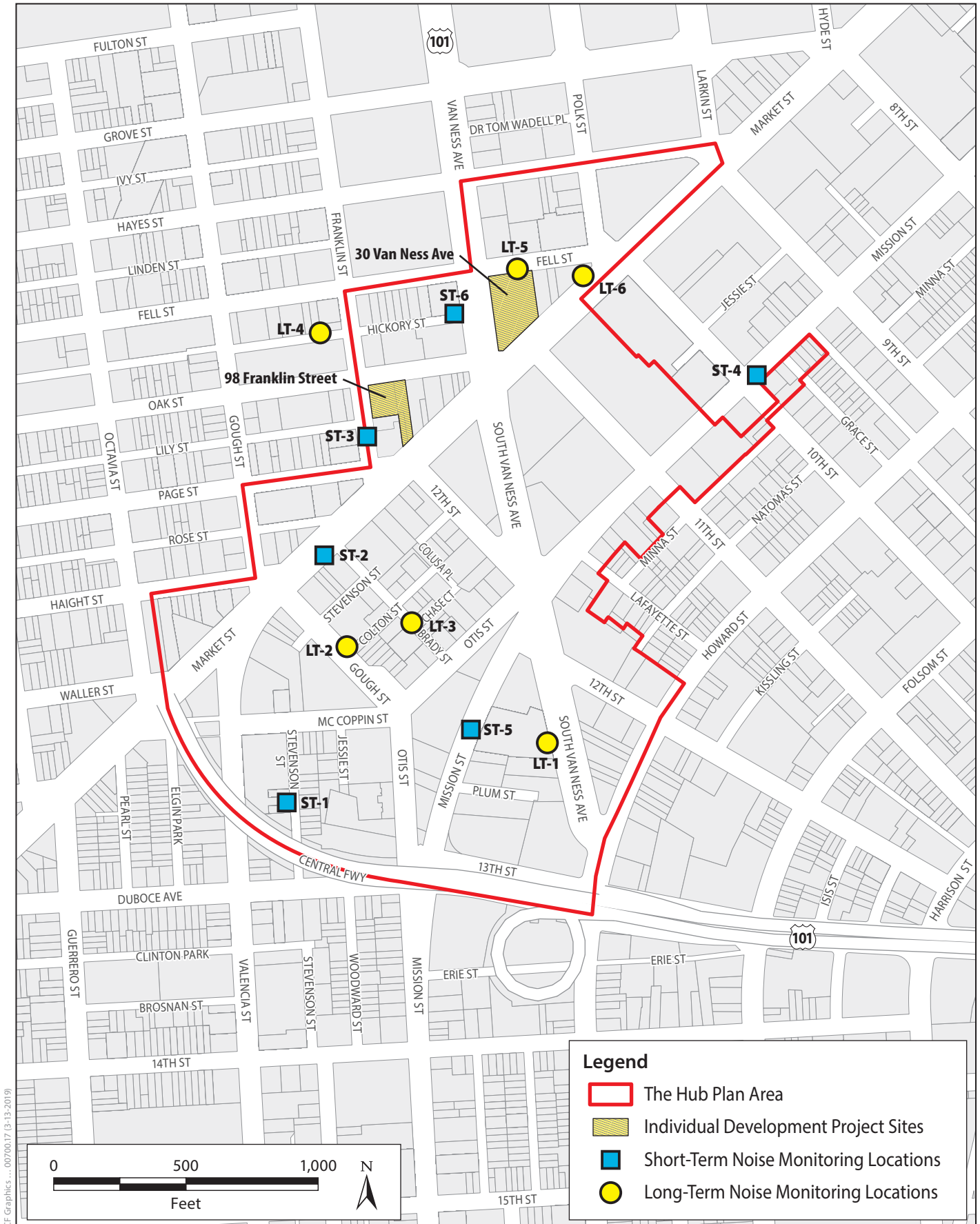
As described above, noise-sensitive land uses in the Hub Plan area consist of residences (mostly multi-family), hotels or other transient lodging, schools, churches and childcare facilities. The existing ambient noise environment in the Hub Plan area is characteristic of an urban environment (e.g., highway and local vehicular traffic, light-rail operations, people walking, aircraft overflights, commercial noise). Noise from vehicular traffic on the major roadways, such as Market Street, Mission Street, and Van Ness Avenue, is the dominant noise source in the Hub Plan area.

To quantify existing ambient noise levels in the Hub Plan area, long-term (24-hour) and short-term (15-minute) ambient noise measurements were conducted between Tuesday, June 19, and Wednesday, June 20, 2018. Measurements were conducted at locations within and adjacent to the Hub Plan area. Short- and long-term measurement locations were selected to capture noise levels in areas that are sensitive to noise or representative of ambient levels in the Hub Plan area throughout the day.

The locations of the noise measurement sites are shown in **Figure 3.C-2**, **Table 3.C-4**, p. 3.C-13, and **Table 3.C-5**, p. 3.C-15, summarize the results of the noise measurement survey. As noted above, existing noise levels in the Hub Plan area are generally relatively loud, with all long-term measurements being in excess of 70 L_{dn} . For the complete dataset of measured noise levels, please refer to Appendix E.

¹⁵ San Francisco Planning Department, *San Francisco General Plan Environmental Protection Element: Map 1 Background Noise Levels – 2009*, http://generalplan.sfplanning.org/images/16.environmental/ENV_Map1_Background_Noise%20Levels.pdf, accessed February 25, 2018.

¹⁶ Ibid.



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Figure 3.C-2
Noise Measurement Locations

TABLE 3.C-4. LONG-TERM NOISE LEVEL MEASUREMENTS IN AND AROUND THE HUB PLAN AREA

Site	Site Description	Date and Time	Measured L_{dn}	Highest-hour	Lowest-hour L_{eq}	Measured 12-hour Daytime
			Tues.–Wed.	L_{eq}	Tues.–Wed.	L_{eq}^a
			06/19–06/20	06/19–06/20	06/19–06/20	06/19–06/20
LT-1	Located in the southern portion of the Hub Plan area along South Van Ness Avenue, north of Plum Street and south of Mission Street, adjacent to multi-family residential housing complex.	Start: Tuesday June 19, 2018, at 10:09 a.m. End: Wednesday June 20, 2018, at 1:09 p.m.	79.1	76.8	68.0	74.5
LT-2	Located along Gough Street at Colton Street, near single-family residential homes.	Start: Tuesday June 19, 2018, at 9:53 a.m. End: Wednesday June 20, 2018, at 12:53 p.m.	74.7	76.0	60.0	67.7
LT-3	Located along Brady Street between Colton Street and Otis Street, near multi-family residential homes.	Start: Tuesday June 19, 2018, at 10:23 a.m. End: Wednesday June 20, 2018, at 1:23 p.m.	67.0	68.6	52.9	65.3
LT-4	Located northeast of the Hub Plan area along Hickory Street, west of Franklin Street and north of International High School.	Start: Tuesday June 19, 2018, at 9 a.m. End: Wednesday June 20, 2018, at 1 p.m.	71.6	74.3	61.0	68.0

TABLE 3.C-4. LONG-TERM NOISE LEVEL MEASUREMENTS IN AND AROUND THE HUB PLAN AREA

Site	Site Description	Date and Time	Measured L _{dn}	Highest-hour	Lowest-hour L _{eq}	Measured 12-hour Daytime
			Tues.–Wed. 06/19–06/20	L _{eq} Tues.–Wed. 06/19–06/20	Tues.–Wed. 06/19–06/20	L _{eq} ^a Tues.–Wed. 06/19–06/20
LT-5	Located in the northwest portion of the Hub Plan area along Fell Street, east of Van Ness Avenue, across from multi-family residences and a Montessori School.	Start: Tuesday June 19, 2018, at 8:40 a.m. End: Wednesday June 20, 2018, at 12:40 p.m.	77.8	76.9	64.4	74.6
LT-6	Located in the northwest portion of the Hub Plan area along Market Street west of Polk Street, adjacent to the New Central Hotel and Hostel.	Start: Tuesday June 19, 2018, at 9:32 a.m. End: Wednesday June 20, 2018, at 1:32 p.m.	79.2	77.0	65.1	73.9

Note: See Appendix E for detailed noise data.

LT = long-term (24-hour/multi-day) ambient noise measurement.

^a. Measured 12-hour daytime L_{eq} is for the 12 normal working hours (7 a.m. to 7 p.m.) for construction in the city.

TABLE 3.C-5. SHORT-TERM NOISE LEVELS MEASUREMENTS NEAR THE HUB PLAN AREA

Site	Site Description	Date and Time	Primary Noise Sources	Measured Noise Level (dBA)		
				Leq	Lmax	Lmin
ST-1	Located in the southwest portion of the Hub Plan area along Stevenson Street, south of McCoppin Street, adjacent to multi-family residential land uses near U.S. 101.	June 20, 2018, at 10:26 a.m.	Construction noise along McCoppin, intermittent helicopter and other aircraft noise, as well as minor vehicle and motorcycle pass-by noise. Some light talking from people walking near the measurement equipment.	63.3	84.8	49.7
ST-2	Located along Market Street southwest of Brady Street, near multi-family residential land uses, a hotel, and commercial land uses.	June 20, 2018, at 9:54 a.m.	Trolley and Muni noise as well as relatively consistent vehicular noise, including horns, truck backup alarms, and sirens. Some light talking from people walking near the measurement equipment.	71.3	83.4	58.9
ST-3	Located along Franklin Street between Lily Street and Page Street, in front of multi-family residences and commercial uses.	June 19, 2018, at 10:52 a.m.	Vehicular traffic and other noise, including horns, truck backup alarms, and doors slamming. Some light talking from people walking near the measurement equipment.	70.6	83.9 ^a	55.6
ST-4	Located in the eastern portion of the Hub Plan area along Mission Street, just east of 10 th Street, near single-story vehicular parking lot as well as multi-family and commercial land uses.	June 19, 2018, at 1:20 p.m.	Vehicular traffic and other noise, including horns, truck backup alarms, and motorcycles revving. Some light talking from people walking near the measurement equipment. Garage gate near measurement location opened once or twice during measurement.	68.1	78.2	56.5

TABLE 3.C-5. SHORT-TERM NOISE LEVELS MEASUREMENTS NEAR THE HUB PLAN AREA

Site	Site Description	Date and Time	Primary Noise Sources	Measured Noise Level (dBA)		
				L _{eq}	L _{max}	L _{min}
ST-5	Located in the southern portion of the Hub Plan area along Mission Street, in front of a multi-family residential building.	June 20, 2018, at 11 a.m.	Vehicular traffic and other noise, including horns, idling engines truck backup alarms, and doors slamming. Some light talking from people walking near the measurement equipment.	68.5	85.5	61.6
ST-6	Located in the northern portion of the Hub Plan area along Hickory Street, immediately west of Van Ness Avenue, near a multi-family residential building commercial and office land uses.	June 19, 2018, at 12:39 p.m.	Vehicular traffic and other noise, including horns and tires squealing. Some loud voices captured by the meter as well as noise generated from people walking near the measurement equipment.	67.6	80.1	59.3

Note: See Appendix E for detailed noise data.

ST = short-term (approximately 15-minute) ambient noise measurement.

^a. Although the actual L_{max} during this 15-minute measurement window was a five-second-long L_{max} of 85.0 to 92.1 dBA, this was due to a long and very loud truck horn honk near the measurement location. An L_{max} of 83.9 dBA, which occurred during normal traffic conditions without the addition of this truck horn noise, is reported in this table in order to not overestimate noise in the ST-3 area.

REGULATORY FRAMEWORK

FEDERAL GUIDELINES

There are no federal regulations that apply to the Hub Plan, the two individual development projects, or the Hub HSD. Instead, this section identifies federal guidelines related to noise and vibration.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

The U.S. Department of Housing and Urban Development has set guidelines for acceptable noise levels in residential areas that include a goal (not a standard) for interior noise levels not to exceed 45 dBA L_{dn} .¹⁷ The guidelines for acceptable ambient noise levels are specified in Code of Federal Regulations title 24, part 51, and are as follows:¹⁸

- Acceptable – 65 dBA L_{dn} or less, all projects may be approved
- Normally unacceptable – Above 65 dBA L_{dn} but not exceeding 75 dBA L_{dn} , require mitigation measures; each project needs to be individually evaluated for approval or denial
- Unacceptable – Above 75 dBA L_{dn} , require mitigation measures and the approval of the assistant secretary for community planning and development or certifying officer

FEDERAL TRANSIT ADMINISTRATION

The Federal Transit Administration (FTA) has developed general assessment criteria for analyzing construction noise. This assessment is based on the simultaneous operation of the two noisiest pieces of equipment. The general assessment criteria for construction noise limits are summarized in **Table 3.C-6**.

TABLE 3.C-6. FTA GENERAL ASSESSMENT CRITERIA FOR CONSTRUCTION NOISE

Land Use	1-hour L_{eq} (dBA)	
	Day	Night
Residential	90	80
Commercial	100	100
Industrial	100	100

Source: Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, 2018, FTA Report No. 0123, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed: December 31, 2018.

¹⁷ U.S. Department of Housing and Urban Development, *The Noise Guidebook*, p. 12, <https://www.hudexchange.info/resource/313/hud-noise-guidebook/>, accessed December 30, 2018.

¹⁸ Code of Federal Regulations, title 24, Housing and Urban Development, part 51, Environmental Criteria and Standards, subpart B, Noise Abatement and Control, section 51.103(c).

STATE REGULATIONS

This section identifies state guidelines and regulations related to noise and vibration.

TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS, NOISE INSULATION STANDARDS

California Code of Regulations title 24, part 2, Sound Transmission, establishes minimum noise insulation standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB in any habitable room. The noise metric is either the L_{dn} or the CNEL, consistent with the environmental protection element of the general plan (discussed below). Compliance with title 24 interior noise standards occurs during the permit review process and generally protects a proposed project's users from existing ambient outdoor noise levels. If determined necessary, a detailed acoustical analysis of exterior wall and window assemblies may be required.

CALIFORNIA DEPARTMENT OF TRANSPORTATION

The California Department of Transportation (Caltrans) provides guidelines regarding vibration associated with construction and operation of transportation infrastructure. **Table 3.C-7** provides Caltrans' vibration guidelines for potential damage to different types of structures.

TABLE 3.C-7. CALTRANS VIBRATION GUIDELINES FOR POTENTIAL DAMAGE TO STRUCTURES

Structure Type and Condition	Maximum Peak Particle Velocity (PPV, in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation, Transportation and Construction Vibration Guidance Manual, Table 19, September 2013, http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf, accessed: October 30, 2018.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Ground-borne vibration and noise can also disturb people, who are generally more sensitive to vibration during nighttime hours when sleeping than during daytime waking hours. Numerous studies have been conducted to characterize the human response to vibration. **Table 3.C-8** provides Caltrans' guidelines regarding vibration annoyance potential (expressed here as PPV).

TABLE 3.C-8. CALTRANS GUIDELINES FOR VIBRATION ANNOYANCE POTENTIAL

Human Response	Maximum PPV (in/sec)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation, Transportation and Construction Vibration Guidance Manual, Table 19, September 2013, Table 20, http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf, accessed: October 30, 2018.

Note: Transient sources create a single, isolated vibration event (e.g., blasting or drop balls). Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

LOCAL REGULATIONS, PLANS, AND POLICIES

This section identifies noise and vibration regulations and guidelines applicable to projects within the city.





SAN FRANCISCO GENERAL PLAN

The San Francisco General Plan contains policies for avoiding or ameliorating noise in the city. Policy 11.1 of the environmental protection element includes the General Plan Land Use Compatibility Chart for Community Noise (see **Table 3.C-9**), which displays acceptable, conditionally acceptable, conditionally unacceptable, and unacceptable noise levels for a variety of land uses in the city. The land use compatibility chart provides guidance as to when, depending on the existing background noise level and the type of land use proposed for a development, a detailed analysis of noise reduction requirements should be made and noise insulation features should be included in the design of a project. According to these guidelines, the maximum “satisfactory, with no special insulation requirements” exterior noise level for residential land uses, including transient lodging such as hotels, is approximately 60 dBA L_{dn} . For office and most commercial land uses, the maximum “satisfactory, with no special insulation requirements,” exterior noise level is 70 dBA L_{dn} .¹⁹ For residential and hotel uses, a detailed analysis of noise reduction measures is required by title 24. The general plan guidelines are shown in full in **Table 3.C-9**.

¹⁹ These limits reflect California’s title 24 interior noise standard of 45 dBA and an assumption that structures generally attenuate exterior-to-interior sound by about 25 dB.

TABLE 3.C-9. SAN FRANCISCO GENERAL PLAN LAND USE COMPATIBILITY GUIDELINES

LAND USE CATEGORY	Sound Levels and Land Use Consequences (see explanation below)						
	L _{dn} Value in Decibels						
	55	60	65	70	75	80	85
RESIDENTIAL All Dwellings, Group Quarters	•••••	•••••	•••••	•••••	•••••	•••••	•••••
TRANSIENT LODGING Hotels, Motels	•••••	•••••	•••••	•••••	•••••	•••••	•••••
SCHOOL CLASSROOMS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES, ETC.	•••••	•••••	•••••	•••••	•••••	•••••	•••••
AUDITORIUMS, CONCERT HALLS, AMPHITHEATRES, MUSIC SHELLS	•••••	•••••	•••••	•••••	•••••	•••••	•••••
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS	•••••	•••••	•••••	•••••	•••••	•••••	•••••
PLAYGROUNDS, PARKS	•••••	•••••	•••••	•••••	•••••	•••••	•••••
GOLF COURSES, RIDING STABLES, WATER-BASED RECREATION AREAS, CEMETERIES	•••••	•••••	•••••	•••••	•••••	•••••	•••••
OFFICE BUILDINGS Personal, Business, and Professional Services	•••••	•••••	•••••	•••••	•••••	•••••	•••••
COMMERCIAL Retail, Movie Theatres, Restaurants	•••••	•••••	•••••	•••••	•••••	•••••	•••••
COMMERCIAL Wholesale and Some Retail, Industrial/Manufacturing, Transportation, Communications and Utilities	•••••	•••••	•••••	•••••	•••••	•••••	•••••
MANUFACTURING COMMUNICATIONS Noise-Sensitive Noise-Sensitive	•••••	•••••	•••••	•••••	•••••	•••••	•••••

-  Satisfactory, with no special noise insulation requirements.
-  New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
-  New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
-  New construction or development should generally not be undertaken.

SAN FRANCISCO NOISE ORDINANCE

In the city, the regulation of noise is addressed in article 29 of the Police Code (the noise ordinance), which affirms a policy to prohibit unnecessary, excessive, and offensive noises. Section 2900 makes the following declaration about community noise levels: “In order to protect public health, it is hereby declared to be the policy of San Francisco to prohibit unwanted, excessive, and avoidable noise. It shall be the policy of San Francisco to maintain noise levels in areas with existing healthful and acceptable levels of noise and to reduce noise levels, through all practicable means, in those areas of San Francisco where noise levels are above acceptable levels, as defined by the World Health Organization's Guidelines on Community Noise” (essentially the same as the Land Use Compatibility Chart discussed above under the San Francisco General Plan).

Construction Noise

Construction noise includes noise from equipment involved in demolition, site preparation, rough framing, and finish work. Section 2907 of the noise ordinance, enforced by the Department of Building Inspection (for construction on private property) and San Francisco Public Works (public works) (for City-sponsored projects), regulates construction noise. Section 2907(a) limits noise from a single piece of construction equipment to 80 dBA when measured at a distance of 100 feet from such equipment or an equivalent sound level at some other convenient distance (such as 86 dBA at a distance of 50 feet). Section 2907(b) provides exemptions to the section 2907(a) limit for impact tools and other equipment (e.g., jack hammers, hoe rams, pile drivers), provided they are fitted with intake and exhaust mufflers and the acoustically attenuating shields or shrouds recommended by their manufacturers and approved by the Director of Public Works (for public works projects) or the Director of Building Inspection (for construction on private property) for maximum noise attenuation. Section 2908 of the noise ordinance prohibits nighttime construction (i.e., between 8 p.m. and 7 a.m.) that generates noise exceeding the ambient noise level by 5 dB at the nearest property plane, unless a special permit has been granted by the Director of Public Works or the Director of Building Inspection.

Operational Noise

Section 2909 of the noise ordinance, enforced by the health department during the day and the police department during the night, provides limits on stationary-source noise and generally prohibits noise levels from any machine, device, music or entertainment venue (or any combination of same) as follows:

- a) For residential properties, no more than 5 dB above the local ambient noise level, as measured at any point outside the property plane;
- b) For commercial and industrial properties, no more than 8 dB above the local ambient noise level, as measured at any point outside the property plane; and

- c) For public property, no more than 10 dB above the local ambient noise level at a distance of 25 feet or more from the noise source (unless the noise source is being operated to serve or maintain the property or as otherwise provided in the noise ordinance).

The criteria provided in section 2909(a)–(c) are limits for specified locations (i.e., the property plane or, for public properties, 25 feet from the noise source) and do not refer to a receptor location. Section 2909(d) establishes a maximum noise level from fixed noise sources (e.g., mechanical equipment) of 55 dBA during the daytime hours (7 a.m. to 10 p.m.) and 45 dBA during the nighttime hours (10 p.m. to 7 a.m.) inside any sleeping or living room in any dwelling unit on residential property to prevent sleep disturbance with windows open, except where building ventilation is achieved through mechanical systems that allow windows to remain closed.

The noise ordinance contains additional limits for specific types of noise sources, such as trash compactors.²⁰

IMPACTS AND MITIGATION MEASURES

This section provides the impact analysis related to noise and vibration for the Hub Plan and the individual development projects. It describes the methods used to determine the impacts of the Hub Plan and the individual development projects and lists the criteria used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the discussion of each identified significant impact.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations but would not require additional California Environmental Quality Act (CEQA) analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

²⁰ For more information, see the San Francisco Department of Public Health, *San Francisco Police Code Article 29: Regulation of Noise, Guidelines for Noise Control Ordinance Monitoring and Enforcement*, December 2014, <https://www.sfdph.org/dph/files/EHSdocs/ehsNoise/GuidelinesNoiseEnforcement.pdf>, accessed December 30, 2018.

SIGNIFICANCE CRITERIA

The Hub Plan and the individual development projects would have a significant effect if they would result in either of the conditions listed below.

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies.
- Generation of excessive ground-borne vibration or ground-borne noise levels.

A project would also normally result in a significant impact with respect to noise if it would be located within an airport land use plan area or, where such a plan has not been adopted, in an area within 2 miles of a public airport, public use airport, or private air strip and expose people in the area to excessive noise levels or if the project would expose people residing or working in the vicinity of a private airstrip to excessive noise levels. As discussed in the Noise subsection of the initial study (see Appendix B), the closest airports to the Hub Plan area are Oakland International Airport and San Francisco International Airport, which are both approximately 10 miles away. The Hub Plan area is not within an airport land use plan area of either airport and, as indicated above, is more than 2 miles from the airports. There are no private airstrips in the vicinity of the Hub Plan area. Therefore, these questions are not discussed further in this EIR.

APPROACH TO ANALYSIS

The Hub Plan is a program that would result in new planning policies to increase permitted heights and rezoning that would result in more consistent land use controls across the area. With the exception of the streetscape and street network improvements and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which are analyzed in this EIR at project-specific levels, the Hub Plan would not itself result in immediate physical changes to the existing noise environment. Effects on the existing noise environment could result as individual development projects allowed under the Hub Plan replace existing land uses over time in the Hub Plan area.

METHODOLOGY FOR ANALYSIS OF CONSTRUCTION NOISE

As discussed above, implementation of the Hub Plan would result in construction noise because the Hub Plan would establish new planning policies and controls that would promote development of sites within the Hub Plan area. The Hub Plan construction noise analysis considers the noise impacts from equipment that is likely to be used for the types of projects that would be developed in the Hub Plan area in the future. In addition, the streetscape and street network improvements proposed in the Hub Plan as well as the demolition and construction activities required for the 30 Van Ness Avenue Project and 98 Franklin Street Project, all of which are analyzed at a project level in this section, would result in construction noise. The project-

specific construction noise analysis for the 30 Van Ness Avenue and 98 Franklin Street projects is based on the construction equipment required for the projects, as identified by the project sponsors. Noise from construction activity typically varies, depending on the type of equipment in use, how many pieces of equipment are operating at any one time, the proximity of equipment to a noise receptor location, and the duration of equipment use. In addition, some equipment, such as an excavator with a hoe ram or a jackhammer, may generate “impulsive noise emissions” (i.e., impact noise).

The specific construction duration and equipment required for subsequent development projects are currently unknown.²¹ For the Hub Plan’s proposed streetscape and street network improvements, construction durations for each block would vary from a high of eight to 10 weeks per block for more intensive changes to a low of four to six weeks for less-intensive improvements. In addition, equipment would be expected to move linearly along the street on which work is proposed rather than operate at the same location each day. Construction activities for the 30 Van Ness Avenue Project are expected to occur over a 3.5-year period, and construction activities for the 98 Franklin Street Project are expected to occur over an approximately 2.25-year (or 27-month) period.

Some construction under the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street may occur during nighttime hours. Specifically, certain activities, such as concrete pours or crane erection, may be easier to conduct during nighttime hours when traffic on surrounding roads is reduced compared with daytime hours. Section 2908 of the noise ordinance prohibits nighttime construction (i.e., between 8 p.m. and 7 a.m.) that generates noise exceeding the ambient noise level by 5 dB at the nearest property plane, unless a special permit has been granted by the Director of Public Works or the Director of Building Inspection.

Potential construction impacts have been evaluated for the Hub Plan, including subsequent development projects developed pursuant to the Hub Plan’s proposed rezoning, and the individual development projects. A programmatic construction noise analysis was conducted for subsequent development projects that would be incentivized under the Hub Plan. A project-level construction noise analysis was conducted for the streetscape and street network improvements and specific individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Each of these project components was evaluated in terms of its potential to result in a substantial temporary increase in ambient noise levels in excess of standards. This was done by calculating the noise levels of the two loudest pieces of equipment and analyzing the potential for construction activities to result in a substantial temporary increase in noise, consistent with FTA guidance for evaluating construction noise. The potential for sleep disturbance at sensitive receptor locations is also considered when determining whether construction activities would

²¹ Some projects (30 Otis Street, 10 South Van Ness Avenue, One Oak Street, 42 Otis Street) proposed for upzoning under the Hub Plan are undergoing separate environmental review. For these projects, specific construction durations and equipment are available in each project’s respective environmental document.

result in a significant impact. The discussion below describes the methodology for each of these analyses in more detail.

Substantial Temporary Increase in Noise from Construction Activities

The analysis of the potential for subsequent development projects to result in a substantial temporary increase in noise levels during construction is conducted at the programmatic level and informed, in part, by the project-level analysis conducted for the 30 Van Ness Avenue and 98 Franklin Street projects. Other subsequent development projects incentivized by the Hub Plan would be similar in size and likely to require similar construction techniques, equipment, and overall duration, with the exception of the pile driving that may occur for subsequent development projects under the Hub Plan, which is not required or proposed for either individual development project.

Project-level analysis of the potential for the streetscape and street network improvements to result in a substantial temporary increase in noise levels is qualitative and based on the characteristics of linear construction projects of short duration.

For the individual development projects (i.e., 30 Van Ness Avenue and 98 Franklin Street), the construction noise analysis assumes that the two loudest pieces of equipment would operate simultaneously, consistent with FTA guidance for evaluating construction noise (see Regulatory Framework section above). This is a reasonable worst-case scenario for determining the maximum construction noise impact because it is unlikely that more than two of the loudest pieces of equipment would operate at the same time at the same location. Where the analysis finds that construction noise levels would exceed 90 dBA (1-hour L_{eq}) or be 10 dB²² above ambient noise levels at noise-sensitive receptors, the analysis then evaluates the intensity, frequency, and duration of the noise levels to determine whether construction of the individual development projects would result in a significant impact. In other words, the quantitative standards are not strict thresholds but, rather, information that, along with intensity and duration, is taken into consideration to determine whether a significant impact would occur. A list of the construction equipment that is expected to be used was provided by the project sponsors for each of the individual development projects. Reference noise levels in FHWA's *Road Construction Noise Model User's Guide* were used to assess noise from this equipment.²³

As described in the Environmental Setting section above, noise-level measurements were conducted at representative locations in the vicinity of the Hub Plan area to establish the current, or baseline, ambient noise levels at existing noise-sensitive land uses in the Hub Plan area. To determine if the Hub Plan (subsequent development projects and streetscape and street network improvements) and the individual development projects would result in a substantial temporary

²² As discussed in the Environmental Setting, a 10 dB increase in noise corresponds to a doubling of the noise level.

²³ Federal Highway Administration, *Roadway Construction Noise Model User's Guide*, Washington, D.C., January 2006, http://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/rcnm.pdf.

increase in noise related to construction, the ambient noise levels at the nearest sensitive receptor were compared to the overall construction noise level from the two loudest pieces of equipment at that receptor. As discussed previously, some construction under the Hub Plan (e.g., concrete pours, crane erection, etc.) may occur during nighttime hours. A noise impact may occur if nighttime construction noise has the potential to result in sleep disturbance for a substantial period of time. Typically, if construction noise would result in interior noise levels of less than 45 dBA at noise-sensitive receptors (with windows closed) or a specific activity would occur for only a short period of time or only a few days over the entire construction period, sleep disturbance would not be expected to be substantial. If sleep disturbance would not be expected to occur, then nighttime construction noise impacts would be considered less than significant.

METHODOLOGY FOR ANALYSIS OF OPERATIONAL NOISE

Implementation of the Hub Plan would result in operational noise because the Hub Plan would establish new planning policies and controls that would incentivize development of sites within the Hub Plan area. The development of these sites would generate additional vehicular traffic, which is the primary source of noise throughout the city. The sites would also be likely to require stationary equipment, such as backup generators, and introduce new uses and activities in the Hub Plan area, including sensitive uses such as residences. The Hub Plan operational noise analysis considers the noise impact from these noise sources. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would likewise result in operational noise from increases in vehicular traffic and the installation of stationary equipment. Each of these sources, as well as the methodology for how they are analyzed, is described below.

Traffic Noise

To determine whether the Hub Plan and the individual development projects would result in a substantial permanent increase in ambient noise levels, noise from the increased vehicle traffic that could be generated under the Hub Plan and the individual development projects was analyzed, based on traffic data received by the project's traffic engineer. Vehicular traffic noise in the Hub Plan area and vicinity was modeled by using peak-hour traffic along roadway segments. Turning movement data for various intersections was generated and converted into average daily traffic (ADT) volumes for 322 roadway segments in the Hub Plan vicinity (see Appendix E). For vehicular traffic noise impacts, the following thresholds were applied to determine whether the Hub Plan and individual development projects would result in significant vehicle-generated noise impacts: (1) an increase of more than 5 dB is considered a significant vehicular traffic noise increase because, as discussed in the Overview of Noise section above, a 5 dB increase in noise levels is readily noticeable and (2) in places where the existing or resulting noise environment is "conditionally acceptable," "conditionally unacceptable," or "unacceptable," based on the land use compatibility chart (**Table 3.C.9**, p. 3.C-20), any noise increase greater than 3 dB is considered a significant vehicular traffic noise increase. For vehicular traffic noise impacts related to the

streetscape and street network improvements, impacts were assessed by determining if the streetscape and street network improvements would generate new vehicles trips or change the network such that some roadways would experience much higher traffic volumes (noting that traffic would have to double to result in a 3 dB increase) and if changes to the roadway alignment would bring traffic much closer to existing noise-sensitive land uses.

As discussed previously, an increase of less than 3 dB is generally not perceptible outside of controlled laboratory conditions. However, in areas where the existing ambient noise levels are already high, a lower significance threshold of 3 dB is appropriate. Given that the existing ambient noise levels throughout the entire Hub Plan area range from 67 to 79 dBA, which is conditionally unacceptable for residential uses, this EIR considers any increase in traffic noise of 3 dB or greater to be a significant impact. An initial screening analysis was conducted for both the plan-level and cumulative traffic-noise impacts assessment to determine which roadway segments would experience a doubling of vehicular traffic compared to existing conditions and, therefore, could experience an increase in noise of approximately 3 dB. At the project level, no roadway segments would experience a doubling of vehicular traffic. For this reason, roadway segments that would experience a smaller increase in vehicular traffic were not analyzed. To assess project-level traffic noise impacts, all roadway segments where project-generated vehicular traffic would increase total roadway volumes by 55 percent or more (i.e., 15 roadway segments out of 322 studied) were quantitatively modeled. As discussed further below, to assess cumulative traffic noise impacts, all roadway segments where a doubling of vehicular traffic from baseline conditions would occur were quantitatively modeled.

Traffic noise modeling for baseline (2020) conditions without Hub Plan implementation and baseline (2020) conditions with Hub Plan implementation was conducted using a spreadsheet that was based on the FHWA Traffic Noise Model, version 2.5. This spreadsheet calculates the vehicular traffic noise level at a fixed distance of 50 feet, which is the typical distance between a roadway centerline and adjacent buildings, and considers the vehicular traffic volume, roadway speed, and vehicle mix that is predicted to occur under each condition. For the assessment of project-level traffic noise impacts, average daily traffic volumes shown in Appendix E were used to determine the vehicular traffic noise levels with and without implementation of the Hub Plan and the individual development projects along the select roadways segments in the Hub Plan area where vehicular traffic would increase by 55 percent or more. For the assessment of cumulative traffic noise impacts, vehicular traffic volumes from the baseline 2020 scenario were compared to the 2040 with-project scenario. As with the assessment of project-level traffic noise impacts, a preliminary screening analysis was conducted to determine which of the 322 analyzed roadway segments would experience a doubling of vehicular traffic (or more) from baseline 2020 no-project to 2040 with-project conditions (35 of the 322 segments studied). Average daily traffic volumes shown in Appendix E were used to determine potential cumulative traffic noise impacts and the potential for the Hub Plan to have a cumulatively considerable contribution to a cumulative impact.

A default vehicle mix (i.e., the proportion of automobiles, trucks, buses, and other vehicles) that is considered reasonable for city roadway segments was used (3.5 percent trucks). Vehicular traffic noise was evaluated in terms of how project-related vehicular traffic noise increases (i.e., over baseline no-project conditions) could affect noise-sensitive land uses in the Hub Plan area.

Stationary Noise Sources

With regard to stationary sources of operational noise, this assessment considers the potential for noise from stationary equipment (e.g., heating, ventilation, and air-conditioning [HVAC] equipment) to exceed the allowed operational noise limit of section 2909(a) (i.e., 5 dB above ambient at a residential property plane), section 2909(b) (i.e., 8 dB above ambient at a commercial property plane), and section 2909(d) of the noise ordinance (i.e., interior noise limits of 45 dBA between the hours of 10 p.m. and 7 a.m. or 55 dBA between the hours of 7 a.m. and 10 p.m. [see p. 3.C-22]). Noise that would be very limited and periodic, such as noise produced by the occasional testing of emergency generators, is evaluated qualitatively; the generators would not be operated with sufficient frequency so as to substantially affect ambient noise levels.

METHODOLOGY FOR ANALYSIS OF VIBRATION IMPACTS

The discussion below summarizes the methodology applied in this assessment of potential vibration-related impacts from construction of the subsequent development projects under the Hub Plan and the two individual development projects. Operations associated with subsequent development projects under the Hub Plan and the individual development projects are not anticipated to generate perceptible levels of vibration at either onsite or offsite receptors. Most vehicular traffic anticipated during operation of the Hub Plan or the individual development projects would be rubber-tired vehicles that would be operating on pavement that would be in good condition. Furthermore, no major sources of vibration are anticipated within any of the proposed new structures. Garbage collection would occur at off-street locations or along existing streets, comparable to existing garbage collection activities; therefore, garbage collection would not be a substantial source of vibration. For these reasons, operational vibration is not considered further.

Similar to the construction noise analysis, the construction vibration analysis for the individual development projects, analyzed at a project-specific level, informs the analysis of subsequent projects enabled under the Hub Plan because these projects would very likely require similar construction activities and equipment.

In evaluating vibration impacts, the analysis focuses on the potential for construction vibration to result in sleep disturbance during nighttime activities or structural damage.

Sleep Disturbance

Project-related construction vibration is evaluated using methods identified in FTA guidance.²⁴ Typical vibration levels associated with heavy-duty construction equipment are shown in **Table 3.C-10** at a reference distance of 25 feet and other distances. For any proposed nighttime construction that would require the use of equipment with the potential to generate vibration, vibration levels at nearby receptors are calculated using the source vibration levels in **Table 3.C-10** and the attenuation equation of $PPV = PPV_{ref} \times (25/Distance)^{1.5}$. These calculated values are then compared to the level of “strong perceptibility,” as identified by Caltrans (i.e., 0.1 in/sec).

TABLE 3.C-10. VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 75 Feet	PPV at 100 Feet	PPV at 175 Feet
Pile driver (impact)	1.518	0.5367	0.2921	0.1898	0.0820
Pile driver (sonic)	0.734	0.2595	0.1413	0.0918	0.0396
Vibratory Roller	0.210	0.0742	0.040	0.0263	0.0113
Hoe ram	0.089	0.0315	0.0171	0.0111	0.0048
Drill	0.089	0.0315	0.0171	0.0111	0.0048
Large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Loaded trucks	0.076	0.0269	0.0146	0.0095	0.0041
Jackhammer	0.035	0.0124	0.0067	0.0044	0.0019
Small bulldozer	0.003	0.0011	0.0006	0.0004	0.0002

Source: Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment, FTA Report No. 0123, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed: December 31, 2018.

²⁴ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, FTA Report No. 0123, 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed December 31, 2018.

Structural Damage

To determine if construction activities have the potential to damage nearby buildings, vibration levels at nearby receptors are calculated using these source vibration levels and the attenuation equation of $PPV = PPV_{ref} \times (25/Distance)^{1.5}$.²⁵ These calculated values are then compared to the structural damage criteria, which vary according to structure type (see **Table 3.C-7**, p. 3.C-18). A structure's susceptibility to vibration-induced damage depends on its age, condition, distance from the vibration source, and the vibration level. Vibration impacts on structures are usually significant if construction vibration could result in structural or cosmetic damage or, in the case of a historic resource, materially alter the resource pursuant to CEQA Guidelines section 15064.5. Depending on a structure's condition, potential vibration-induced damage may be cosmetic (e.g., plaster or wood ornamentation may be damaged) or structural, in which case the integrity of the building may be threatened.

IMPACT EVALUATION

CONSTRUCTION NOISE

Impact NOI-1. During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards. (Significant and Unavoidable with Mitigation)

The Hub Plan

The proposed Hub Plan involves no changes that would immediately result in construction noise. However, subsequent development projects developed under the Hub Plan would be expected to involve the use of construction equipment and generate construction noise in the Hub Plan area. Streetscape and street network improvements would also generate construction noise. These are addressed separately from subsequent development projects below.

Construction activity noise levels at or near construction sites in the Hub Plan area would fluctuate, depending on the particular type of construction equipment, the number of pieces, and duration of use. In addition, certain types of construction equipment generate percussive noises, such as pile driving, which can be particularly noisy. This analysis assumes that at least some development in the Hub Plan area will require the use of pile driving. **Table 3.C-11** shows typical noise levels generated by construction equipment.

As described in the Regulatory Framework section, above, section 2907(a) of the Police Code limits noise from construction equipment to 80 dBA when measured at a distance of 100 feet from such equipment or an equivalent sound level at some other convenient distance (with a few exceptions, detailed previously).

²⁵ Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, FTA Report No. 0123, 2018, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed December 31, 2018.

TABLE 3.C-11. TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Construction Equipment	Noise Level at 50 Feet (dB, L _{max})	Noise Level at 100 Feet (dB, L _{max})
Impact pile driver ^a	101 (intermittent)	95 (intermittent)
Hoe ram (impact hammer) ^a	90	84
Concrete saw	90	84
Jackhammer ^a	89	83
Grader	85	79
Auger drill rig	84	78
Tractor	84	78
Bulldozer	82	76
Concrete pump truck	81	75
Excavator	81	75
Crane	81	75
Roller	80	74
Front-end loader	79	73
Air compressor	78	72
Backhoe	78	72
Paver	77	71
Dump Truck	76	70

Source: Federal Highway Administration, *Roadway Construction Noise Model User's Guide*, 2006.

^a. Impact tool.

As shown in **Table 3.C-11**, the only piece of non-impact equipment that is expected to generate noise levels greater than 80 dBA at a distance of 100 feet that is subject to the noise limit in the noise ordinance is the concrete saw, which would generate a noise level of 84 dBA L_{max} at a distance of 100 feet. Although this is greater than the criteria specified in the noise ordinance, this type of equipment is typically used only for a limited time during construction projects. Specifically, concrete saws are used for relatively detailed demolition work, such as opening up a specific area of roadway or sidewalk. As such, the duration and frequency of their use are typically not extensive. Given that all equipment, except the concrete saw, would comply with applicable noise limits, and given the generally limited duration of concrete saw use, individual pieces of equipment would generally be expected to comply with noise ordinance limits.

With regard to nighttime construction noise, section 2908 of the City noise ordinance prohibits nighttime construction (i.e., between 8 p.m. and 7 a.m.) that would exceed the ambient noise level by 5 dB at the nearest property plane, unless a special permit has been granted by the Director of Public Works or the Director of Building Inspection. If granted, the nighttime construction permit would include stipulations and restrictions that the contractors of subsequent development projects would be required to comply with.

Substantial Temporary or Periodic Increase in Ambient Noise Levels

Construction of subsequent development projects under the Hub Plan could result in substantial temporary or periodic increases in ambient noise levels. For example, at 25 feet, noise from simultaneous operation of a concrete saw and a dozer could be in the range of approximately 90 dBA L_{eq} , as shown in **Table 3.C-12**.

TABLE 3.C-12. EXAMPLE OF CONSTRUCTION NOISE FROM TYPICAL CONSTRUCTION EQUIPMENT

	Maximum Sound Level (dBA)	Utilization Factor ^a	L_{eq} Sound Level (dBA)
Concrete Saw – Sound level (dBA) at 50 feet =	90	20%	83.0
Dozer – Sound level (dBA) at 50 feet =	82	40%	78.0
Calculated Data:			
Sources Combined – L_{max} sound level (dBA) at 50 feet =			91 dBA L_{max}
Sources Combined – L_{eq} sound level (dBA) at 50 feet =			84 dBA L_{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB) ^b	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA) ^c
25	6	97	90
50	0	91	84
100	-6	85	78
200	-12	79	72
300	-16	75	69
400	-18	73	66
500	-20	71	64
600	-22	69	63

^a The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b Geometric attenuation based on 6 dB per doubling of distance, using 50 feet as the baseline distance (e.g., at 25 feet, combined noise would be 6 dB louder than it would be at 50 feet).

^c This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

Some subsequent development projects may involve the use of impact equipment, such as a pile driver, which is the loudest piece of construction equipment typically used for development projects. At 25 feet, noise from simultaneous operation of a concrete saw and a pile driver could be in the range of approximately 100 dBA L_{eq} , as shown in **Table 3.C-13**.

TABLE 3.C-13. EXAMPLE OF CONSTRUCTION NOISE, INCLUDING IMPACT EQUIPMENT

	Maximum Sound Level (dBA)	Utilization Factor^a	L_{eq} Sound Level (dBA)
Concrete Saw – Sound level (dBA) at 50 feet =	90	20%	83.0
Pile Driver – Sound level (dBA) at 50 feet =	101	20%	94.0
Calculated Data:			
Sources Combined – L _{max} sound level (dBA) at 50 feet =			101 dBA L _{max}
Sources Combined – L _{eq} sound level (dBA) at 50 feet =			94 dBA L _{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)^b	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)^c
25	6	107	100
50	0	101	94
100	-6	95	88
200	-12	89	82
300	-16	86	79
400	-18	83	76
500	-20	81	74
600	-22	80	73

^a The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b Geometric attenuation based on 6 dB per doubling of distance, using 50 feet as the baseline distance (e.g., at 25 feet, combined noise would be 6 dB louder than it would be at 50 feet).

^c This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

Because some construction activities associated with the subsequent development projects under the Hub Plan may be 25 feet, or less, from existing noise-sensitive land uses, it is likely that construction noise from subsequent development under the Hub Plan could exceed 100 dBA (and therefore exceed the FTA criterion of 90 dBA for residential land uses) at sensitive receptors.

In addition to comparing the construction noise levels to the 90 dBA L_{eq} criterion, as discussed above, the increase from construction noise can be compared to the ambient noise level in the vicinity of the proposed construction. As indicated by the 24-hour measurements conducted in the Hub Plan area (see **Table 3.C-4**, p. 3.C-13), measured 12-hour average L_{eq} noise levels for the normal 7 a.m. to 7 p.m. construction hours of the City were in the range of 65 to 75 dBA L_{eq}. Construction equipment noise associated with subsequent development projects, which could be in the range of 90 to 100 dBA L_{eq}, based on the examples shown in **Table 3.C-12**, p. 3.C-32, and **Table 3.C-13**, p. 3.C-33, could therefore result in a 10 dB or greater increase in noise compared

with ambient levels. Depending on the intensity of construction noise levels and the duration, noise from temporary or periodic construction activities associated with subsequent projects that exceeds either 90 dBA or is 10 dB above ambient noise levels, which are not known at this time, could be considered significant. In addition to individual construction projects that could result in significant noise impacts, it is possible that multiple projects enabled under the Hub Plan could be under construction simultaneously in proximity to the same sensitive receptors. If this were to occur, the combined effect of these construction noise impacts may also result in excessive noise levels at sensitive receptor locations (either by prolonging the period of time the receptors would be exposed to construction noise or by resulting in a greater intensity of noise at a given receptor because of activities associated with multiple simultaneous construction projects). In addition, in the event that pile driving is required for a subsequent development project under the Hub Plan, the intensity of construction noise could be even greater.

With regard to nighttime construction noise, a substantial temporary increase in noise that results in sleep disturbance for a substantial period of time would be considered significant. Typically, if construction noise would result in interior noise levels of less than 45 dBA at noise-sensitive receptors (with windows closed) or a specific activity would occur for only a short period of time or only a few days over the entire construction period, sleep disturbance would not be expected to be significant. Construction activities associated with subsequent development projects under the Hub Plan that may occur during nighttime hours include concrete pours, tower crane erection, site maintenance and material delivery/handling, and street utility work. Equipment used for concrete pours would typically include concrete mixer trucks, concrete pumps, and water trucks. Equipment used for tower crane erection would typically include a tractor, a crane, and a forklift. Equipment used for site maintenance and material delivery and handling would typically include trucks, forklifts, and loaders. Equipment used for the street utility work sub-phase of construction would typically include concrete saws, excavators, and forklifts.

Concrete pours, which would occur relatively infrequently during nighttime hours over the duration of a project construction window, could generate combined noise levels of 84 dBA L_{eq} at a distance of 25 feet. Refer to **Table 3.C-14** for the combined noise levels of a concrete mixer truck and a concrete pump truck at various distances. Noise from other construction activities that could occur during nighttime hours would often be similar but may be slightly louder or quieter, depending on the exact equipment being used. For example, combined noise levels from the use of a crane and a tractor, during tower crane erection, would also be approximately 84 dBA L_{eq} at 25 feet. Noise from a concrete saw and an excavator (used for street utility work) at a distance of 25 feet would be approximately 90 dBA L_{eq} , and noise from a loader and forklift at a distance of 25 feet (during nighttime site maintenance activities) would be approximately 81 dBA L_{eq} .

TABLE 3.C-14. EXAMPLE NIGHTTIME CONSTRUCTION NOISE FOR THE HUB PLAN – CONCRETE POURS

Source Data:	Maximum Sound Level (dBA)	Utilization Factor^a	Leq Sound Level (dBA)
Construction Condition: Nighttime Concrete Pour Example			
Concrete mixer truck – Sound level (dBA) at 50 feet =	79	40%	75.0
Concrete pump truck – Sound level (dBA) at 50 feet =	81	20%	74.0
Calculated Data:			
Sources Combined – L _{max} sound level (dBA) at 50 feet =			83 dBA L _{max}
Sources Combined – L _{eq} sound level (dBA) at 50 feet =			78 dBA L _{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)^b	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)^c
25	6	89	84
50	0	83	78
100	-6	77	72
200	-12	71	66
300	-16	68	62
400	-18	65	59
500	-20	63	58
600	-22	62	56

^a. The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b. Geometric attenuation based on 6 dB per doubling of distance, using 50 feet as the baseline distance (e.g., at 25 feet, combined noise would be 6 dB louder than it would be at 50 feet).

^c. This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

Based on the typical residential buildings that exist within the city, an assumption of a 25 dB noise reduction with windows closed is reasonable. Therefore, a nighttime noise level of 84 dBA at 25 feet would be reduced to approximately 59 dBA with windows closed, and a nighttime noise level of 90 dBA at 25 feet would be reduced to 65 dBA with windows closed. This interior noise level would be in excess of 45 dBA. Although nighttime construction would occur relatively infrequently compared with daytime construction activities, it is possible that nighttime construction activity could result in sleep disturbance in the vicinity of construction for subsequent development projects under the Hub Plan. Furthermore, if multiple projects enabled under the Hub Plan are under construction in proximity to the same sensitive receptors and both require nighttime construction, the duration for potential sleep disturbance would increase. For these reasons, it is likely that construction of subsequent development projects under the Hub

Plan would result in a substantial temporary or periodic increase in ambient noise levels in excess of thresholds during both daytime and nighttime hours. This impact would be considered *significant* for subsequent development projects under the Hub Plan, acknowledging that not all subsequent development projects would necessarily result in a significant construction noise impact.

Mitigation Measures

M-NOI-1a: Construction Noise Control Plan for Projects within 250 Feet of a Noise-Sensitive Land Use. The project sponsor for each subsequent development project under the Hub Plan located within 250 feet of a noise-sensitive land use or proposing or required to conduct nighttime construction shall develop a noise control plan to ensure that project noise from all construction activities (including construction, demolition, and excavation, etc.) is minimized to the maximum extent feasible, with a goal of construction noise not exceeding 90 dBA and 10 dB above the ambient noise level at noise-sensitive receptors. The measures specified by the project sponsor for each individual project shall be reviewed and approved by the San Francisco Planning Department prior to the issuance of building permits. Measures that may be used to restrict noise include, but are not limited to, those listed below.

- Locate construction equipment, including stationary noise sources (e.g., temporary generators), as far as feasible from adjacent or nearby noise-sensitive receptors.
- Stationary noise sources (e.g., generators and compressors) located in proximity to noise-sensitive land uses shall be muffled, enclosed within temporary enclosures, and shielded by barriers (which can reduce construction noise by as much as 5 dB).
- Electric motors rather than gasoline- or diesel-powered engines shall be used to avoid noise associated with compressed air exhaust from pneumatically powered tools. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used (which can reduce noise levels from exhaust by approximately 10 dB). External jackets on the tools themselves shall also be used (which could reduce noise by approximately 5 dB).
- Construction contractors shall be required to use “quiet” gasoline-powered compressors or electrically powered compressors as well as electric rather than gasoline- or diesel-powered forklifts for small lifting, where feasible.
- Prohibit idling of inactive construction equipment for prolonged periods (i.e., more than two minutes).

- Prohibit or limit gasoline or diesel engines from having unmuffled exhaust systems.
- Ensure that equipment and trucks used for project construction use the best available noise control techniques (e.g., improved mufflers, equipment redesign, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds).
- Ensure that impact tools (e.g., jack hammers, pavement breakers, rock drills) used for project construction are hydraulically or electrically powered, when possible. Quieter equipment shall be used instead of impact equipment, when feasible (such as drills rather than impact equipment).
- Undertake the noisiest activities during times of least disturbance to surrounding residents and occupants.
- Limit nighttime construction to the extent feasible. If nighttime construction is determined to be necessary, a special permit shall be obtained from the Director of Public Works or the Director of Building Inspection. Nighttime construction activities shall comply with the requirements of the permit. In addition, the contractor shall employ the measures discussed above (e.g., limiting idling, locating equipment far from noise-sensitive receptors, using noise-reducing enclosures, etc.) or other feasible measures to reduce noise such that interior noise at nearby receptors is reduced to the extent practicable (below 45 A-weighted decibels, equivalent sound level, where feasible).
- If required by the San Francisco Planning Department, based on the degree of construction, proximity of sensitive uses, or a noise complaint, the project sponsor shall monitor noise levels during periods of noisy construction activities (demolition, excavation, etc.). A plan for noise monitoring and reporting shall be provided to the San Francisco Planning Department for review prior to the commencement of construction.

Prior to the issuance of the building permit, along with the submission of construction documents, the project sponsor shall submit to the San Francisco Planning Department a list of measures for responding to and tracking complaints pertaining to construction noise. These measures shall include onsite posting and a noise hotline. They may also include:

- A procedure and phone number for notifying the San Francisco Planning Department, the health department, or the police department of complaints (during regular construction hours and off hours).

- A sign posted onsite describing noise complaint procedures and a complaint hotline number that shall be answered at all times during construction.
- Designation of an onsite construction complaint and enforcement manager for the project.

M-NOI-1b: Site-Specific Noise Control Measures for Projects Involving Pile Driving. For subsequent development projects under the Hub Plan that require pile driving, a set of site-specific noise attenuation measures shall be prepared under the supervision of a qualified acoustical consultant and reviewed and approved by the San Francisco Planning Department prior to the commencement of any pile-driving activity. These attenuation measures shall be included in the construction of the project and include as many of the following control strategies, and any other effective strategies, as feasible to reduce noise from pile driving at nearby noise-sensitive land uses:

- Require the construction contractor to erect temporary plywood or similar solid noise barriers along the boundaries of the project site to shield sensitive receptors and reduce noise levels;
- Require the construction contractor to implement “quiet” pile-driving technology (such as pre-drilling of piles, sonic pile drivers, and the use of more than one pile driver to shorten the total pile driving duration), where feasible, with consideration of geotechnical and structural requirements and soil conditions.
- Require the construction contractor to monitor the effectiveness of noise attenuation measures by taking noise measurements, at a distance of 100 feet, at least once per day during pile-driving; and
- Require that the construction contractor limit pile driving activity to result in the least disturbance to neighboring uses.

Significance after Mitigation

Mitigation Measure M-NOI-1a would reduce construction noise from subsequent development projects in the Hub Plan area associated with implementation of the Hub Plan. However, because specific details of subsequent development projects (e.g., equipment types, duration of construction, proximity to sensitive receptors) are not known at this time, it is not possible to ensure that Mitigation Measure M-NOI-1a would reduce all future project-specific impacts to less-than-significant levels. For example, if construction must occur very close to an adjacent noise-sensitive land use, noise levels may be excessive for the entire construction duration. In addition, depending on the type of equipment being used or the proximity of the equipment to nearby noise-sensitive uses, the use of shielding may not be feasible. Therefore, it is possible that construction noise levels would still be excessive for prolonged periods of time, even with implementation of this mitigation measure.

For subsequent development projects under the Hub Plan that would involve the use of pile driving, the project sponsor for a subsequent development project would be required to implement Mitigation Measure M-NOI-1b. Implementation of this measure would help reduce noise from pile driving activity. However, as with Mitigation Measure M-NOI-1a, it cannot be known at this time if implementation of Mitigation Measures NOI-1b would reduce construction noise from pile driving, combined with other equipment noise, to less-than-significant levels for every subsequent development project. For example, if it is not feasible to use alternative methods to install piles (e.g., drilling instead of pile driving in some cases) because of soil types or the specifics of the construction design, noise levels may be excessive. Furthermore, the potential exists for multiple projects enabled under the Hub Plan to be under construction simultaneously and in proximity to one another, thereby increasing the overall intensity or duration of construction noise for nearby sensitive receptors. Therefore, although Mitigation Measures NOI-1a and NOI-1b would reduce the amount of construction noise generated by subsequent development projects in the Hub Plan area to the extent feasible, construction noise from these projects may still be significant. This impact is considered *significant and unavoidable* for subsequent development projects under the Hub Plan.

Streetscape and Street Network Improvements

The Hub Plan would enhance some streets within the Hub Plan area in order to improve the area for people walking and bicycling. At present, the streets in the Hub Plan area are mostly wide and predominantly one-way streets, with long blocks, narrow sidewalks, and few amenities. The Hub Plan proposes to make improvements to the major streets and alleys in the Hub Plan area, as shown in **Figure 2-2**, p. 2-4, and as described in detail in Chapter 2, Project Description. Specific improvements may include the widening of sidewalks, the creation of new linear public green spaces with street trees, the upgrading of city streetlights, and the realignment or expansion of medians to improve walkability.

Although noise-generating construction equipment would be used to complete these streetscape and street network improvements, the activities would be short term (generally between four and 10 weeks per block for each individual improvement, depending on the intensity of the specific improvement project). In addition, because the streetscape and street network improvement work would be linear, the equipment would not be located near the same noise-sensitive land use for the duration of the relatively short-term construction period for each block of improvement. Furthermore, construction activity is a common occurrence in the urban environment. Although construction noise may be disruptive to persons located nearby, it would be temporary and intermittent and would vary in intensity, depending on the phases of construction.

The equipment expected to be used for these improvements includes a Bobcat/backhoe with impact hammer, an excavator, a concrete saw, a trailer-mounted air compressor, a backhoe with an auger to dig support poles, a compactor, cement and asphalt trucks, a roller, sweepers, and

concrete saws.²⁶ **Table 3.C-11**, p. 3.C-31, shows the noise levels of typically used individual pieces of equipment at a distance of 100 feet compared to the allowable noise level defined in the City noise ordinance. Other types of equipment, such as hand tools and dump trucks, may also be used but are not included in **Table 3.C-11**, p. 3.C-31, because they generate less noise than the other equipment listed in that table.

Again, as shown in **Table 3.C-11**, p. 3.C-31, the only piece of equipment expected to generate noise levels greater than 80 dBA at a distance of 100 feet that is subject to the noise ordinance is a concrete saw, which would generate a noise level of 84 dBA L_{max} at a distance of 100 feet. Given the generally limited duration of use for a concrete saw, individual pieces of equipment would generally be expected to comply with the noise ordinance limits. In addition, construction for streetscape and street network improvements is expected to occur during daytime hours and therefore would not result in nighttime noise increases that could then result in sleep disturbance.

Substantial Temporary or Periodic Increase in Ambient Noise Levels

To assess the noise levels of streetscape and street network improvement construction, a reasonable worst-case noise scenario was modeled that combined noise levels from the two loudest pieces of equipment expected to be used during a single streetscape and street network improvement activity. Construction noise modeling assumed that the types of equipment required for a single activity would be operating simultaneously and at the same location; the results are presented in **Table 3.C-15**. Simultaneous operation of a concrete saw and a Bobcat with an impact hammer during the demolition phase would result in the noise levels shown in **Table 3.C-15**.

As shown in **Table 3.C-15**, below, the estimated noise level at 25 feet from a concrete saw and a mounted impact hammer would be approximately 92 dBA L_{eq} . Although this noise level is in excess of 90 dBA, and may be 10 dB above the ambient level, the construction duration for individual streetscape and street network improvements is expected to be relatively short term, with each block of improvement work taking between four and 10 weeks. The construction equipment for these improvements would be moving linearly along the street during construction, not active at all times during the workday, and not located adjacent to the same noise-sensitive receptor for the entire duration of the improvement. In addition, nighttime construction activities are not anticipated for these streetscape and street network improvements. For these reasons, any noise increases from construction activities for streetscape and street network improvements would not be considered substantial, and this impact would be *less than significant*.

²⁶ San Francisco Planning Department, *Construction Equipment Lists*, 2018.

TABLE 3.C-15. CONSTRUCTION NOISE LEVELS FOR HUB STREETScape IMPROVEMENTS

	Maximum Sound Level (dBA)	Utilization Factor ^a	L _{eq} Sound Level (dBA)
Concrete Saw – Sound level (dBA) at 50 feet =	90	20%	83.0
Mounted Impact Hammer – Sound level (dBA) at 50 feet =	90	20%	83.0
Calculated Data:			
Sources Combined – L _{max} sound level (dBA) at 50 feet =			93 dBA L _{max}
Sources Combined – L _{eq} sound level (dBA) at 50 feet =			86 dBA L _{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB) ^b	Calculated L _{max} Sound Level (dBA) ^c	Calculated L _{eq} Sound Level (dBA) ^c
25	6	99	92
50	0	93	86
60	-2	91	84
100	-6	87	80
200	-12	81	74
300	-16	77	70
400	-18	75	68
500	-20	73	66
600	-22	71	64

Notes:

^a The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b Geometric attenuation based on 6 dB per doubling of distance.

^c This calculation does not include the effects, if any, of local shielding from walls, topography or other barriers which may reduce sound levels further.

Impact NOI-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. (Less than Significant with Mitigation)

30 Van Ness Avenue Project

Construction of the 30 Van Ness Avenue Project is expected to occur over a 3.5-year period, from May 2020 through December 2023. Construction would typically be limited to the daytime hours of 7 a.m. to 7 p.m., consistent with the City noise ordinance, with some infrequent nighttime construction activities related to concrete pours, crane erection, site maintenance, and material delivery and handling. No impact equipment is proposed for use on the 30 Van Ness Avenue Project. In general, construction for the 30 Van Ness Avenue Project would consist of demolition,

site preparation, grading, building construction, paving, and architectural coating phases. However, construction activity is a common occurrence in the urban environment. Although construction noise may be disruptive to persons located nearby, it would be temporary and intermittent and would vary, depending on the phases of construction.

As shown in **Table 3.C-16**, almost all non-impact equipment that is anticipated to be used for project construction would generate noise below the allowable 80 dBA at a distance of 100 feet.

The only piece of non-impact equipment proposed for use that would exceed this noise level is the concrete saw. However, again, the duration and frequency of concrete saw use is typically not extensive.

Substantial Temporary or Periodic Increase in Ambient Noise Levels

This EIR evaluates the construction noise level from the 30 Van Ness Avenue Project and compares it with the FTA criteria discussed above. To analyze the noise levels from construction, a reasonable worst-case noise scenario was modeled that evaluated the noise levels from simultaneous operation of the two loudest pieces of equipment expected to be used during a single phase of the 30 Van Ness Avenue Project. Construction noise modeling evaluated the noise level from the two loudest pieces of equipment that could occur in a given construction phase (because construction phases are not anticipated to overlap) and assumed that the equipment was operating simultaneously and at the same location; the results are presented in **Table 3.C-17**, p. 3.C-44.

The nearest receptors to construction activities for the 30 Van Ness Avenue Project are the multi-family residential apartment complex located at 100 Van Ness Avenue and the Montessori school across Fell Street, located approximately 50 feet from construction activities. As shown in **Table 3.C-17**, p. 3.C-44, combined average construction noise levels at a distance of 50 feet would be approximately 84 dBA L_{eq} . Therefore, the combined noise level would be below the recommended 90 dBA L_{eq} FTA criterion for overall construction noise.

The closest long-term noise measurement location to the proposed 30 Van Ness Avenue Project is LT-5, which is located along Fell Street, northeast of the project site. At this location, the daytime 12-hour L_{eq} noise level was measured at 74.6 dBA L_{eq} . Based on this noise level, overall construction noise levels of 84 dBA L_{eq} would result in an increase in noise of approximately 9.4 dB. The noise increase of 9.4 dB over ambient is close to the FTA allowable criterion of up to a 10 dB increase. Because there is typically a margin of error in both construction noise modeling and noise measurement data, the 9.4 increase is close enough to 10 dB above ambient noise levels for further consideration.

TABLE 3.C-16. 30 VAN NESS AVENUE PROJECT – INDIVIDUAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	L_{max} Noise Level at 50 feet	L_{max} Noise Level at 100 feet
Concrete/industrial saws	90	84
Rubber tired dozers	82	76
Sweepers/scrubbers	80	74
Water trucks	76	70
Bore/drill rigs	85	79
Cranes	81	75
Tractors/loaders/backhoes	80	74
Excavators	81	75
Forklifts	84	78
Welders	74	68
Aerial lifts	85	79
Pumps	77	71
Pavers	77	71
Rollers	85	79
Air compressors	78	72

TABLE 3.C-17. CONSTRUCTION NOISE LEVELS FOR 30 VAN NESS AVENUE PROJECT

Source Data:	Maximum Sound Level (dBA)	Utilization Factor^a	Leq Sound Level (dBA)
Construction Condition: Demolition			
Concrete Saw – Sound level (dBA) at 50 feet =	90	20%	83.0
Dozer – Sound level (dBA) at 50 feet =	82	40%	78.0
Calculated Data:			
Sources Combined – L _{max} sound level (dBA) at 50 feet =			91 dBA L _{max}
Sources Combined – L _{eq} sound level (dBA) at 50 feet =			84 dBA L _{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)^b	Calculated L_{max} Sound Level (dBA)^c	Calculated L_{eq} Sound Level (dBA)^c
25	6	97	90
50	0	91	84
60	-2	90	83
100	-6	85	78
200	-12	79	72
300	-16	76	69
400	-18	73	66
500	-20	71	64
600	-22	70	63

Notes:

^a The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b Geometric attenuation based on 6 dB per doubling of distance.

^c This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers that may reduce sound levels further.

Although the exact two pieces of equipment modeled above (a concrete saw and a dozer) would not operate concurrently for the full 3.5-year construction duration (they would be expected to operate simultaneously for only a few weeks), it is likely that at least two pieces of equipment (and oftentimes many more than two) would often operate concurrently on the project site. It is therefore possible that a 10 dB increase in noise over ambient would occur during the construction window. Given the 3.5-year construction period; the proximity of sensitive receptors to construction activity; and the already-high existing noise levels, which would be exacerbated during construction (almost doubling in loudness), construction noise is conservatively concluded to be a *significant* impact.

As discussed previously under the analysis for the Hub Plan, nighttime construction would be considered to result in a substantial temporary increase in noise if it would result in substantial sleep disturbance. Typically, if construction noise would result in interior noise levels of less than 45 dBA at noise-sensitive receptors (with windows closed) or a specific activity would occur for only a short period of time or only a few days over the entire construction period, sleep disturbance would not be expected to be substantial. Construction activities that may occur during nighttime hours for the 30 Van Ness Avenue Project include concrete pours (which may occur over seven nights), crane erection and adjustment activities (which may occur over 30 to 35 nights), site maintenance activities (which may occur, on average, four nights per month), and material delivery and handling (which may occur two to three nights per week over a period of two to four hours per night). Equipment used for concrete pours would typically include concrete mixer trucks, concrete pumps, and water trucks. Equipment used for crane erection and adjustment would typically include a tractor, crane and forklift. Equipment used for site maintenance activities and material delivery and handling would typically include trucks, forklifts, and loaders.

Concrete pours, which would occur relatively infrequently during nighttime hours over the duration of the project construction window, could generate combined noise levels of 78 dBA L_{eq} at a distance of 50 feet. Refer to **Table 3.C-18** for the combined noise levels of a concrete mixer truck and a concrete pump truck at various distances. Combined noise from other activities that occur during nighttime hours would be similar but may differ slightly, depending on the exact equipment being used. For example, combined noise levels from the use of a crane and a tractor, during crane erection, would also be approximately 78 dBA L_{eq} at 50 feet. Noise from a loader and a forklift, used during site maintenance activities and materials delivery and handling, at a distance of 50 feet would be approximately 75 dBA L_{eq} . Although noise during crane erection and site maintenance activities and materials delivery/handling may be lower, those activities are expected to occur more frequently.

As discussed under the analysis for the Hub Plan, an assumption of a 25 dB noise reduction with windows closed is reasonable for typical residential buildings that exist within the City. Therefore, a nighttime noise level of 78 dBA at 50 feet during concrete pours (the distance to the residential building located at 100 Van Ness Avenue [across Fell Street]) would be reduced to approximately 53 dBA with windows closed. Noise during other nighttime construction activities for the 30 Van Ness Avenue Project would be even lower. Nighttime construction activities may occur even farther from this sensitive use if work is conducted along Van Ness Avenue instead of Fell Street. However, even if equipment is 100 feet from the nearest sensitive land use, exterior noise could be up to approximately 72 dBA L_{eq} , and interior noise levels would be in excess of 45 dBA. Although nighttime construction would occur relatively infrequently compared with daytime construction activities, it is possible that nighttime construction activity for the 30 Van Ness Avenue Project could result in sleep disturbance in the project vicinity. Furthermore, given the frequency of possible sleep disturbance (a total of approximately 200 to 230 nights), the potential for sleep disturbance from construction activities is considered *significant*.

TABLE 3.C-18. NIGHTTIME CONSTRUCTION NOISE FOR 30 VAN NESS AVENUE PROJECT – CONCRETE POURS

Source Data:	Maximum Sound Level (dBA)	Utilization Factor^a	L_{eq} Sound Level (dBA)
Construction Condition: Nighttime Concrete Pour			
Concrete mixer truck – Sound level (dBA) at 50 feet =	79	40%	75.0
Concrete pump truck – Sound level (dBA) at 50 feet =	81	20%	74.0
Calculated Data:			
Sources Combined – L _{max} sound level (dBA) at 50 feet =			83 dBA L _{max}
Sources Combined – L _{eq} sound level (dBA) at 50 feet =			78 dBA L _{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)^b	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)^c
50	0	83	78
100	-6	77	72
200	-12	71	66
300	-16	68	62
400	-18	65	59
500	-20	63	58
600	-22	62	56

^a. The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b. Geometric attenuation based on 6 dB per doubling of distance.

^c. This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

Because daytime and nighttime construction activities may result in substantial noise increases, construction noise impacts for the 30 Van Ness Avenue Project would be *significant*.

Mitigation Measures

Mitigation M-NOI-1a, described previously for the Hub Plan, would also be required for the 30 Van Ness Avenue Project.

Significance after Mitigation

With implementation of Mitigation Measure M-NOI-1a, noise levels from project construction at 30 Van Ness Avenue, as well as the intensity of potential noise effects, would be reduced to the maximum extent feasible. Although the duration or frequency of the construction activities would not change as a result of this mitigation measure, the noise levels at nearby receivers would be reduced such that the temporary noise increases would be less substantial. Depending on the

specifics of the measures outlined in the noise control plan, once finalized, construction equipment would be intentionally located as far as feasible from adjacent noise-sensitive receptors, and shielding to reduce noise may be incorporated, as feasible. In addition, an onsite construction complaint and enforcement manager would be designated for the project to ensure noise complaints would be addressed. Because of the temporary nature of construction noise, as well as the fact that the two noisiest pieces of construction equipment are not likely to be in operation simultaneously for the entire duration of construction activities, and the analysis above demonstrates that even if the two noisiest pieces of construction equipment were to operate for the entire duration of construction, the combined noise level at noise-sensitive receptors would be just below 10 dB above the ambient noise level, implementation of Mitigation Measure M-NOI-1a is reasonably expected to reduce construction noise impacts to *less than significant* for the 30 Van Ness Avenue Project.

98 Franklin Street Project

Construction of the 98 Franklin Street Project is expected to occur over an approximately 2.25-year (or 27-month) period, from June 2021 through August 2023. Construction would be limited to the daytime hours of 6 a.m. to 8 p.m., with some infrequent nighttime construction activities related to concrete/mat foundation pours, street utility work, and tower crane erection. The typical hours of construction for the project would generally be consistent with the daytime construction hours allowed by the City noise ordinance (7 a.m. to 7 p.m.). However, for activities occurring outside of typical daytime hours, the project sponsor would seek approval to conduct construction activities and obtain a special permit from public works. Construction activities would be required to comply with the requirements of this permit, which would include a limit on the level of noise that could be generated and the type of equipment (no impact equipment) that could be used. In general, construction for the 98 Franklin Street Project would consist of demolition, shoring, excavation, building construction, paving, and architectural coating phases. Although construction noise may be disruptive to persons located nearby, it would be temporary and intermittent and would vary, depending on the phases of construction. Such noise is a common occurrence in the urban environment.

As described previously, the City noise ordinance limits noise from individual pieces of powered construction equipment to a level of 80 dBA L_{max} at a distance of 100 feet, except for impact equipment. As shown in **Table 3.C-19**, almost all non-impact equipment anticipated to be used for project construction would generate noise levels below the allowable 80 dBA at a distance of 100 feet.

TABLE 3.C-19. 98 FRANKLIN STREET PROJECT – INDIVIDUAL CONSTRUCTION EQUIPMENT NOISE LEVELS AND NOISE ORDINANCE CRITERIA

Equipment	L_{max} Noise Level at 50 feet	L_{max} Noise Level at 100 feet
Concrete/Industrial Saws	90	84
Rubber Tired Dozers	82	76
Sweepers/Scrubbers	80	74
Water Trucks	76	70
Skid Steer Loaders	80	74
Drill Rigs/Tieback Rig	85	79
Compressor	80	74
Generator	82	76
Cranes	81	75
Excavators	81	75
Rough Terrain Forklift	84	78
Welders	74	68
Scissor lifts	85	79
Pumps	77	71
Pavers	77	71
Rollers	85	79

The only piece of non-impact equipment proposed for use for the 98 Franklin Street Project that would exceed this noise level is the concrete saw. Again, the duration and frequency of concrete saw use is typically not extensive. Because the concrete saw would be used only for a limited time, the construction equipment used for the proposed 98 Franklin Street Project would substantially comply with the noise ordinance.

Substantial Temporary or Periodic Increase in Ambient Noise Levels

To assess overall daytime construction noise levels from the 98 Franklin Street Project, noise from the two loudest pieces of equipment expected to be used during a single phase was modeled, with the equipment assumed to be operating simultaneously. Simultaneous operation of a concrete saw and a dozer during the demolition phase would result in the noise levels shown in **Table 3.C-20**.

TABLE 3.C-20. CONSTRUCTION NOISE LEVELS FOR 98 FRANKLIN STREET PROJECT

Source Data:	Maximum Sound Level (dBA)	Utilization Factor^a	L_{eq} Sound Level (dBA)
Construction Condition: Demolition			
Concrete Saw – Sound level (dBA) at 50 feet =	90	20%	83.0
Dozer – Sound level (dBA) at 50 feet =	82	40%	78.0
Calculated Data:			
Sources Combined – L _{max} sound level (dBA) at 50 feet =			91 L _{max}
Sources Combined – L _{eq} sound level (dBA) at 50 feet =			84 L _{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB)^b	Calculated L_{max} Sound Level (dBA)^c	Calculated L_{eq} Sound Level (dBA)^c
25	0	97	90
50	0	91	84
60	-2	89	83
100	-6	85	78
200	-12	79	72
300	-16	75	69
400	-18	73	66
500	-20	71	64
600	-22	69	63

Note:

^a. The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b. Geometric attenuation based on 6 dB per doubling of distance.

^c. This calculation does not include the effects, if any, of local shielding from walls, topography or other barriers, which may reduce sound levels further.

The nearest sensitive receptors to construction activities for the 98 Franklin Street Project would be the residential receptors inside the buildings directly adjacent to the project site to the south (20 Franklin Street and 1580–1598 Market Street). The San Francisco Conservatory of Music (a school, which is considered noise sensitive), located at 50 Oak Street, is approximately 25 feet away, across Oak Street and north of the project site. However, the adjacent residences are much closer to the proposed construction. As shown in **Table 3.C-20**, the average noise level (1-hour L_{eq}) at a distance of 25 feet would be approximately 90 dBA L_{eq}. Construction noise at the residential building adjacent to the project site would be even louder because this building would be approximately 10 feet from the closest edge of the 98 Franklin Street project site. At a distance of 10 feet from construction activity, noise from 98 Franklin Street Project

construction activity could be up to 98 dBA L_{eq} . Therefore, the construction noise level could be greater than the 90 dBA L_{eq} FTA criteria. Construction activities at 98 Franklin Street are expected to occur over a 27-month period.

Although the exact two pieces of equipment modeled above (a concrete saw and a dozer) would not operate concurrently for the full two-year construction duration (they would be expected to operate simultaneously for approximately one week), it is likely that at least two pieces of equipment (and oftentimes many more than two) would often operate concurrently on the project site. Because of the proximity to sensitive receptors, the 90 dBA L_{eq} FTA criteria would be expected to be exceeded, regardless of which pieces of heavy equipment were operating simultaneously. Therefore, these modeled noise levels would be similar to those that could occur on a regular basis on the project site. Consequently, construction noise levels from project construction would be expected to be in excess of the 90 dBA FTA criterion for the entire 27-month duration of construction and would be considered substantial.

The closest long-term noise measurement to the proposed 98 Franklin Street Project is LT-4, located along Hickory Street (north of Fell Street) to the northwest of the project site. At this location, the daytime 12-hour L_{eq} noise level was 68.0 dBA L_{eq} . Therefore, the overall construction noise levels of more than 98 dBA L_{eq} (at the nearest adjacent noise-sensitive building) would have the potential to increase the overall ambient noise levels in the project area by 30 dB, or well over 10 dB, during daytime hours. Thus, it is anticipated that construction noise would increase ambient noise levels by 10 dB (a perceived doubling of loudness) for the entire duration of construction.

With regard to nighttime construction, typically, if construction noise would result in interior noise levels of less than 45 dBA at noise-sensitive receptors (with windows closed) or if a specific activity would occur for only a short period of time or only a few days over the entire construction period, sleep disturbance would not be expected to be substantial. Construction activities that may occur during nighttime hours for the 98 Franklin Street Project include concrete/mat pours (which may occur on two to four individual nights, typically during the weekend), street utility work (which may occur five to 10 nights for a period of six to eight hours), and tower crane erection (which may occur on two occasions during the daytime but may extend into nighttime hours). Equipment used for concrete pours would typically include concrete mixer trucks, concrete pumps, and water trucks. Equipment used for crane erection would typically include a mobile crane and possibly some support equipment. Equipment used for street utility work would include a concrete saw, excavator, and a forklift.

Street utility work, which would occur relatively infrequently during nighttime hours (an estimated five to 10 times total) over the duration of a project construction window, could generate noise levels from the simultaneous use of a concrete saw and an excavator of 84 dBA L_{eq} at a distance of 50 feet, or 90 dBA L_{eq} at a distance of 25 feet. **Table 3.C-21** shows the noise levels expected to result from nighttime street utility work at various distances. Noise from other activities that occur during nighttime hours would typically be similar but may be slightly louder or quieter, depending on the exact equipment being used. For example, combined noise levels from the use of a crane and a tractor (during tower crane erection) would be approximately 84 dBA at 25 feet, as would noise from a concrete mixer truck and a concrete pump truck (during concrete pours).

TABLE 3.C-21. NIGHTTIME CONSTRUCTION NOISE FOR 98 FRANKLIN STREET PROJECT – STREET UTILITY WORK SUB-PHASE

Source Data:	Maximum Sound Level (dBA)	Utilization Factor ^a	L_{eq} Sound Level (dBA)
Construction Condition: Nighttime Concrete Pour			
Concrete saw – Sound level (dBA) at 50 feet =	90	20%	83.0
Excavator – Sound level (dBA) at 50 feet =	81	40%	77.0
Calculated Data:			
Sources Combined – L_{max} sound level (dBA) at 50 feet =			91 dBA L_{max}
Sources Combined – L_{eq} sound level (dBA) at 50 feet =			84 dBA L_{eq}
Distance Between Source and Receiver (feet)	Geometric Attenuation (dB) ^b	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA) ^c
25	6	97	90
50	0	91	84
100	-6	84	78
200	-12	78	72
300	-16	75	68
400	-18	72	66
500	-20	71	64
600	-22	69	62

^a. The utilization factor, or acoustical use factor, is the percentage of time each piece of construction equipment is assumed to be operating at full power (i.e., its noisiest condition) during construction; it is used to estimate L_{eq} values from L_{max} values.

^b. Geometric attenuation based on 6 dB per doubling of distance.

^c. This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers, which may reduce sound levels further.

As discussed under the analysis for the Hub Plan, a 25 dB noise reduction with windows closed can be assumed for typical residential buildings within the city. Therefore, the nighttime noise level of 84 dBA L_{eq} at 50 feet (or 90 dBA L_{eq} at 25 feet, depending how close street utility activities, or other similar activities, would occur to the adjacent residences), would be reduced to approximately 59 dBA L_{eq} at 50 feet (or 65 dBA L_{eq} at 25 feet) with windows closed. Nighttime construction activities may occur even farther than this distance from the nearest residence, depending on where the work is conducted. However, even if equipment is located 100 feet from the nearest sensitive land use, exterior noise would be approximately 78 dBA L_{eq} , and interior noise levels would be 53 dBA L_{eq} (and still in excess of 45 dBA L_{eq}). Refer to the analysis presented under the Hub Plan for nighttime noise levels of concrete pours, which would also result in interior noise levels in excess of 45 dBA L_{eq} . Although nighttime construction would occur relatively infrequently compared with daytime construction activities, it is possible that nighttime construction activity for the 98 Franklin Street Project could result in sleep disturbance in the project vicinity. Although the frequency of possible sleep disturbance would be relatively limited (an expected maximum total of approximately 20 nights), the potential for sleep disturbance is considered a significant impact.

The degree of the increase in noise levels above the ambient noise level that could occur during daytime hours, in combination with construction occurring over a two-year period in proximity to noise-sensitive receptors, would be considered a substantial temporary increase in noise during daytime hours. In addition, nighttime construction activities may also result in substantial noise increases. Therefore, construction noise from the 98 Franklin Street Project would be *significant*.

Mitigation Measures

Mitigation Measure M-NOI-1a, described previously for the Hub Plan, would also be required for the 98 Franklin Street Project.

Significance after Mitigation

With implementation of Mitigation Measure M-NOI-1a, noise levels from project construction at 98 Franklin Street, as well as the intensity of potential noise effects, would be reduced to the maximum extent feasible. Although the duration or frequency of the construction activities would not change as a result of this mitigation measure, the noise levels at nearby receivers would be reduced such that the temporary noise increases would be less substantial. For example, depending on the specifics of the measures outlined in the noise control plan once finalized, construction equipment would be intentionally located as far as feasible from adjacent noise-sensitive receptors, and shielding to reduce noise may be incorporated, as feasible. In addition, an onsite construction complaint and enforcement manager would be designated for the project, to ensure noise complaints would be addressed. Because of the temporary nature of construction

noise as well as implementation of Mitigation Measure M-NOI-1a, impacts related to construction noise would be *less than significant* for the 98 Franklin Street Project.

CONSTRUCTION VIBRATION

Impact NOI-3. Construction of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would generate excessive ground-borne vibration or ground-borne noise levels. (Less than Significant with Mitigation)

Construction activity is a main cause of vibration effects, and the two main concerns associated with construction-generated vibration are annoyance/sleep disturbance and potential structural damage.

The Hub Plan

As discussed previously, no immediate changes are anticipated to occur with Hub Plan implementation that would result in construction vibration. However, construction of subsequent development projects under the Hub Plan could involve the use of vibration-generating construction equipment, which could result in damage to structures or, if operated during nighttime hours, sleep disturbance. These effects of construction vibration are analyzed below. Streetscape and street network improvements would also generate construction vibration. These are addressed separately from subsequent development projects below.

Damage to Structures

The potential for construction-related vibration impacts depends on the proximity of construction activities to sensitive receptors, the number and types of construction equipment, and duration of construction equipment use. At least some subsequent development projects under the Hub Plan would be expected to use pile drivers, and most development projects would at least be expected to use heavy-duty equipment, such as a large bulldozer or vibratory roller. Typical vibration levels associated with heavy-duty construction equipment are shown in **Table 3.C-10**, p. 3.C-29, at a reference distance of 25 feet and other distances, based on the attenuation equation discussed above in Overview of Vibration and Ground-Borne Noise.

It is unknown at this time how close construction activities associated with subsequent development projects under the Hub Plan would occur to historic or older and potentially fragile buildings because detailed construction information is not available. However, some of the 18 sites proposed for upzoning under the Hub Plan (excluding the two individual development projects analyzed in this EIR) are adjacent to buildings that are considered to be CEQA historical resources, and some may be located close to buildings that would qualify as older residential structures (as shown in **Table 3.C-7**, p. 3.C-18). Refer to **Figure 2-7**, p. 2-23, for information about the location of sites proposed for upzoning and **Figure 3.A-1**, p. 3.A-20, for information about the location of potentially historic resources.

As discussed in Section 3.A, Cultural Resources, and illustrated in **Figure 3.A-1**, p. 3.A-20, several historic structures are located throughout, and adjacent to, the Hub Plan area and vicinity. A number of older residential structures, newer residential structures, and modern industrial/commercial buildings are also expected to be in proximity to construction activities. Because of the lack of detailed construction information for each subsequent development project, it is not possible to ensure that all construction activity from subsequent development projects would occur far enough away from nearby buildings to avoid vibration-related damage from construction in the Hub Plan area. In fact, it is likely that some construction activities would occur adjacent to buildings that could be susceptible to potential damage.

In the Hub Plan area, the majority of the buildings that are most sensitive to vibration would be classified under the Caltrans vibration guidelines (**Table 3.C-7**, p. 3.C-18) as “historic and some old buildings.” Fragile buildings or extremely fragile historic buildings are unlikely to be present. This is because most older buildings in the city have been subject to mandatory structural upgrade programs, such as the mandatory Soft-Story Retrofit Program. Buildings classified as older residential buildings, newer residential structures and modern industrial/commercial structures may also occur in the Hub Plan area but are considered less sensitive to vibration than “historic and some old buildings” (refer to **Table 3.C-7**, p. 3.C-18).

It is possible that non-pile driving equipment (such as vibratory rollers or bulldozers) would be required and used at distances closer than 25 feet. At a distance of 25 feet, a vibratory roller would generate ground-borne vibration levels of approximately 0.210 PPV in/sec and a large bulldozer would generate ground-borne vibration levels of approximately 0.089 PPV in/sec. Therefore, at 25 feet, neither a vibratory roller or a large bulldozer would exceed the damage criterion for historic and some old buildings of 0.25 PPV. However, equipment may be required to operate closer than 25 feet from adjacent structures.

Vibration from a large bulldozer at a distance of 10 feet could result in vibration of 0.352 PPV in/sec, and vibration from a vibratory roller at a distance of 19 feet could result in a vibration level of 0.317 PPV in/sec. These levels are both in excess of the recommended 0.25 PPV in/sec level for historic and some old buildings and in excess of the 0.3 PPV in/sec criterion for older residential structures. The 0.25 PPV in/sec criterion for historic and some old buildings could be exceeded by non-piling driving equipment at distances of up to 22 feet for a vibratory roller and 12 feet for a large bulldozer, and it is possible that construction would occur within these distances of adjacent structures. Construction activities using equipment besides pile drivers could therefore potentially result in damage-related vibration effects to adjacent susceptible structures. **Table 3.C-22** shows the vibration levels of a bulldozer and vibratory roller at these distances.

TABLE 3.C-22. VIBRATION LEVELS OF TYPICAL BULLDOZER AND VIBRATORY ROLLER

Distance (feet)	Vibration Level (PPV in/sec)	Thresholds by Building Type (Continuous/Frequent Intermittent Sources)		
		Historic and Some Old Buildings	Older Residential Structures	New Residential Structures
Vibratory Roller				
19	0.327	0.25	0.3	0.5
22	0.254	0.25	0.3	0.5
Large Bulldozer				
10	0.353	0.25	0.3	0.5
12	0.268	0.25	0.3	0.5

Note: Bolded thresholds are expected to be exceeded at the applicable distances.

With regard to impact equipment, as shown in **Table 3.C-10**, p. 3.C-29, a pile driver could generate a vibration level of 1.518 PPV in/sec at 25 feet. This vibration level is in excess of the Caltrans continuous/frequent intermittent source criteria, which are designed to prevent structural damage for the building types shown in **Table 3.C-7**, p. 3.C-18, including modern industrial/commercial buildings (the building type shown in **Table 3.C-7**, p. 3.C-18, that is the least susceptible to damage from vibration). Pile driving could result in vibration levels in excess of the damage criteria for historic and some old buildings (0.25 PPV in/sec) at distances of up to 82 feet. At a distance of 70 feet, vibration levels from pile driving could be in excess of the criteria for older residential structures. At a distance of 50 feet, vibration levels from pile driving activity could be in excess of the damage criteria for both new residential structures and modern industrial/commercial structures (as well as all other categories of buildings shown in **Table 3.C-7**, p. 3.C-18). **Table 3.C-23** shows the vibration levels of a pile driver at these distances.

TABLE 3.C-23. PILE DRIVER VIBRATION LEVELS AT VARIOUS DISTANCES

Distance (feet)	Vibration Level (PPV in/sec)	Thresholds by Building Type (Continuous/Frequent Intermittent Sources)		
		Historic and Some Old Buildings	Older Residential Structures	New Residential Structures
82	0.26	0.25	0.3	0.5
70	0.32	0.25	0.3	0.5
50	0.54	0.25	0.3	0.5

Note: Bolded thresholds are expected to be exceeded at the applicable distances.

Because vibration levels from both pile drivers and other equipment could exceed the damage criteria for buildings present within the Hub Plan area (historic and some old buildings as well as less fragile buildings types), it is possible that damage could result from vibration-generating activities occurring as a result of implementation of the Hub Plan. Potential vibration impacts related to damage to structures would be considered *significant*.

Mitigation Measures

M-NOI-3a: Protect Adjacent Potentially Susceptible Structures from Construction-Generated Vibration. The project sponsor for subsequent development projects in the Hub Plan area shall consult with the San Francisco Planning Department's environmental planning and preservation staff (as applicable) to determine whether adjacent or nearby buildings constitute structures that could be adversely affected by construction-generated vibration. For purposes of this measure, nearby potentially susceptible buildings within 100 feet of a construction site for a subsequent development project shall be considered if pile driving would be required at that site; if no pile driving would occur, potentially susceptible buildings within 25 feet of vibration-generating construction activity, such as the use of excavators, drill rigs, bulldozers, and vibratory rollers, shall be considered.

If buildings adjacent to construction activity are identified that could be adversely affected, the project sponsor shall incorporate into construction specifications for the proposed project a requirement that the construction contractor(s) use all feasible means to avoid damage to adjacent and nearby buildings. Such methods to help reduce vibration-related damage effects may include maintaining a safe distance between the construction site and the potentially affected building, to the extent possible, based on site constraints, or using construction techniques that reduce vibration, such as concrete saws instead of jackhammers or hoe-rams to open excavation trenches, non-vibratory rollers, or hand excavation to the extent feasible. For projects that would require piles, "quiet" pile-driving technologies (such as predrilling piles or using sonic pile drivers) shall be used, as feasible; appropriate excavation shoring methods shall be employed to prevent the movement of adjacent structures; and adequate security shall be ensured to minimize risks related to vandalism and fire.

M-NOI-3b: Construction Monitoring Program for Structures Potentially Affected by Vibration. For structures located close enough to experience vibration levels that could result in building damage, as determined through compliance with Mitigation Measure M-NOI-3a, the project sponsor shall undertake a monitoring program to minimize damage to adjacent buildings and ensure that any such damage is documented and repaired. The monitoring program, which shall apply within 100 feet of pile-driving activities and within 25 feet of other

vibration-generating activities, shall be followed and include the following components:

- Prior to the start of any ground-disturbing activity, the project sponsor shall engage a historic architect or qualified historic preservation professional to undertake a pre-construction survey of potentially affected historic buildings identified by the San Francisco Planning Department within 100 feet of planned pile-driving activity or within 25 feet of other vibration-generating activity to document and photograph the existing conditions of the building(s). If nearby affected buildings are not potentially historic, a structural engineer or other professional with similar qualifications shall document and photograph the existing conditions of potentially affected buildings within 100 feet of pile-driving activity or within 25 feet of other vibration-generating construction activity.
- Based on the construction and condition of the resource(s), the consultant shall also establish a standard maximum vibration level that shall not be exceeded at any building, based on existing conditions, character-defining features, soil conditions, and anticipated construction practices (common standards are a peak particle velocity of 0.25 inch per second for historic and some old buildings, a peak particle velocity of 0.3 inch per second for older residential structures, and a peak particle velocity of 0.5 inch per second for new residential structures and modern industrial/commercial buildings, as shown in **Table 3.C-7**, p. 3.C-18).
- To ensure that vibration levels do not exceed the established standard, the project sponsor shall monitor vibration levels at each structure and prohibit vibratory construction activities that generate vibration levels in excess of the standard.
- Should vibration levels be observed in excess of the selected standard, construction shall be halted and alternative construction techniques put in practice, to the extent feasible (e.g., pre-drilled piles could be substituted for driven piles, if feasible, based on soil conditions, or smaller, lighter equipment could be used in some cases).
- The historic preservation professional (for effects on historic buildings) and/or structural engineer (for effects on non-historic structures) shall conduct regular periodic inspections (every three months) of each building during ground-disturbing activity on the project site. Should damage to any building occur, the building(s) shall be remediated to their pre-construction condition at the conclusion of ground-disturbing activity on the site.

Significance after Mitigation

Mitigation Measures M-NOI-3a and M-NOI-3b would be required to ensure that the potential for damage to nearby buildings as a result of construction activity from subsequent development projects would be properly identified, avoided, or monitored; repairs would be made as necessary to return any damaged structure to its pre-construction condition. Maintaining distances of 100 feet between pile-driving activity and 25 feet between other heavy construction activities and nearby potential sensitive structures would ensure that the applicable damage criterion would not be exceeded (refer to **Table 3.C-22**, p. 3.C-55, and **Table 3.C-23**, p. 3.C-55, for the distances at which the thresholds may be exceeded). Should it not be possible to maintain those distances, monitoring would ensure that vibration levels would not exceed the applicable damage criterion. Should the applicable criteria be exceeded, periodic inspections would ensure that damage would not occur or would be remediated to the pre-construction condition. Therefore, following implementation of M-NOI-3a and M-NOI-3b, the impact of subsequent development under the Hub Plan resulting in structural damage from construction vibration would be reduced to a *less-than-significant* level.

Sleep Disturbance

Ground-borne vibration could be considered significant if it were to result in sleep disturbance at sensitive receptors near subsequent development sites. A significant vibration impact related to annoyance (specifically, sleep disturbance) could occur if nighttime construction activities were to generate vibration levels that would be strongly perceptible at sensitive receptor locations for a substantial period of time.

Although vibration levels could exceed the strongly perceptible level during daytime hours, construction of subsequent development projects enabled under the Hub Plan would often occur during daytime hours, as defined in the City noise ordinance (which prohibits nighttime construction between 8 p.m. and 7 a.m. without a special permit). However, some relatively short-term construction activities for subsequent development projects may need to occur at night. For example, typical construction activities that often occur during nighttime hours include concrete pours, tower crane erection, and street utility work. Pile driving is not likely to be allowed during nighttime hours, nor is it likely that nighttime construction activities would require the use of equipment such as a large bulldozer that would generate vibration levels above 0.1 PPV in/sec (the criterion for vibration that is strongly perceptible). Nighttime construction may at times require the use of ground-disturbing equipment (such as a small bulldozer or excavator); however, it is more common for equipment such as concrete mixers, concrete saws, and cranes (which do not generate much vibration beyond the immediate work area) to be used during nighttime hours. At a distance of 5 feet, vibration levels from a small bulldozer or excavator would be below the strongly perceptible vibration criterion of 0.10 PPV in/sec, with an estimated vibration level of 0.03 PPV in/sec. Nighttime construction would commonly occur at greater distances from nearby residential land uses.

Although subsequent development projects may require the use of pile-driving or other more ground-disturbing and vibration-generating equipment, it is unlikely that these types of equipment would be used during nighttime hours when people normally sleep. Furthermore, even if some vibration-generating equipment were to be necessary during nighttime hours, the duration of use for that equipment would be expected to be minimal. Therefore, sensitive receptors in and near the Hub Plan area would not be exposed to strongly perceptible ground-borne vibration during nighttime hours for a prolonged period of time, and this impact would be *less than significant* for subsequent development projects under the Hub Plan.

Streetscape and Street Network Improvements

Damage to Structures

Specific streetscape and street network improvements would be constructed in and adjacent to the Hub Plan area with implementation of the Hub Plan. These improvements are expected to require the use of construction equipment, which may include a backhoe/Bobcat with an impact hammer, excavators, a backhoe with an auger drill, and a roller, among other equipment types. Refer to **Table 3.C-11**, p. 3.C-31, for a list of the equipment that may be used. Refer to **Figures 2-2** and **2-3**, pp. 2-4 and 2-8, for details about streetscape and street network improvement locations.

As discussed previously, several historic structures are located throughout, and adjacent to, the Hub Plan area and vicinity. A number of older residential structures, newer residential structures, and modern industrial/commercial buildings are also expected to be near future construction activities. Because some of the streetscape and street network improvements would occur on sidewalks or in the street, and therefore close to property lines (and potentially structures) in the Hub Plan area, the potential for vibration-related damage must be assessed. The equipment proposed for use along the sidewalks would typically be smaller than equipment required for the street construction components of these improvement projects. For example, a jackhammer and a small bulldozer or excavator may be required for the sidewalk work, and a vibratory roller and a large bulldozer or excavator may be required for the work within the street.

The types of construction activities conducted for the streetscape improvements would be similar to construction activities that routinely occur at other street or sidewalk projects in the city. Although these construction activities may occur relatively close to buildings that may be considered susceptible to vibration-related damage (e.g., historic or older buildings), public works, which commonly implements these projects, has a standard construction measure pertaining to vibration-related damage. Specifically, according to Standard Construction Measure 9 (Cultural Resources), if the preservation staff of the San Francisco Planning Department identifies potential adverse effects on a historical resource from a project, the preservation planner will consult with public works to determine if the project can be conducted as planned or if the project design can be revised to avoid a significant impact. In addition, if a project is directly adjacent to historic buildings or structures that may be susceptible to vibration,

as determined in consultation with the preservation staff of the San Francisco Planning Department, public works will determine if vibrations associated with proposed construction activities have the potential to cause damage to buildings or structures. Finally, if any damage to a historic building or structure occurs, public works will modify activities to minimize further vibration, and any damage to the building will be repaired in consultation with the preservation planner. Therefore, with implementation of this Standard Construction Measure, this impact is considered *less than significant* for streetscape and street network improvements.

Sleep Disturbance

Public works would implement streetscape and street network improvements pursuant to the San Francisco Planning Department's standard construction measures. Pursuant to these measures, streetscape and street network construction activities would comply with San Francisco Police Code section 2907(a) by limiting noise related to construction equipment to 80 dBA at a distance of 100 feet from such equipment. In addition, San Francisco Police Code section 2907(a) limits construction activity to the hours of 7 a.m. to 8 p.m. on weekdays. No streetscape and street network construction activities are expected to occur outside of these hours; therefore, there would be no nighttime construction activities. Because construction activities would not occur during hours when people normally sleep, sensitive receptors near the improvement projects would not be exposed to strongly perceptible vibration during nighttime hours. This impact would be *less than significant* for streetscape and street network improvements.

30 Van Ness Avenue Project

Damage to Structures

Construction of the 30 Van Ness Avenue Project would require equipment that could generate ground-borne vibration. The project site is surrounded by development, including some historic structures. The west boundary of the site for the 30 Van Ness Avenue Project is near the article 11–designated former Masonic Temple at 25 Van Ness Avenue (approximately 100 feet to the west) as well as the article 11–designated 50 Fell Street resource, which is now a Montessori school (approximately 60 feet to the north). Approximately 60 feet east of the eastern project boundary is the California Register of Historical Resources–eligible resource at 1438–1444 Market Street. These buildings are all considered to be historic (refer to **Table 3.C-7**, p. 3.C-18) for the purposes of this vibration analysis. Potential vibration impacts on other buildings types (new residential structures and modern industrial/commercial buildings) are also assessed.

Typical vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet, and other distances, are shown in **Table 3.C-10**, p. 3.C-29. In addition, **Table 3.C-24**, shows vibration levels from equipment proposed for the 30 Van Ness Avenue

TABLE 3.C-24. VIBRATION LEVELS FOR 30 VAN NESS AVENUE PROJECT CONSTRUCTION EQUIPMENT

Equipment	PPV at 3 Feet	PPV at 60 Feet
Drill	2.14	0.02
Large bulldozer	2.14	0.02
Loaded trucks	1.83	0.01
Jackhammer	0.84	0.06
Small bulldozer	0.07	0.00

Source: Federal Transit Administration, 2018, *Transit Noise and Vibration Impact Assessment, FTA Report No. 0123*, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed: December 31, 2018.

Project at a distance of 60 feet (the distance to the nearest potentially historic resource). The most vibration-intensive types of construction equipment proposed for the 30 Van Ness Avenue Project are a drill and large bulldozer (pile drivers are not proposed for use). The two closest potentially historic resources to the 30 Van Ness Avenue project site are approximately 60 feet from the perimeter of the site. At this distance, a drill and a large bulldozer could both generate ground-borne vibration levels of 0.02 PPV in/sec, which would be less than the building damage criterion for historic and some old buildings. Therefore, historic and some old buildings would not be expected to incur damage as a result of project construction. However, it is possible that construction activities could occur as close as 3 feet from the neighboring property directly east of the project site. At a distance of approximately 3 feet from nearby structures, it is likely the vibration effects could be substantial. Refer to **Table 3.C-24** for vibration levels from equipment proposed for the 30 Van Ness Avenue Project at a distance of 3 feet. As shown in the table, a large bulldozer or auger drill could result in a vibration level of 2.141 PPV in/sec at a distance of 3 feet. This is in excess of the 0.5 PPV in/sec damage criterion for new residential or modern industrial/commercial buildings, the 0.3 PPV in/sec criterion for older residential structures, and the 0.25 PPV in/sec criterion for historic and some old buildings. Therefore, the applicable damage criterion for the building located adjacent to the project site could be exceeded by project construction activities; vibration-related damage impacts would be considered *significant* for the 30 Van Ness Avenue Project.

Mitigation Measures

Mitigation M-NOI-3a and M-NOI-3b, described previously for the Hub Plan, would also be required for the 30 Van Ness Avenue Project.

Significance after Mitigation

Mitigation Measures M-NOI-3a and M-NOI-3b, described previously under the analysis for the Hub Plan, would be required for construction of the 30 Van Ness Avenue Project. Implementation of these mitigation measures would ensure that any cosmetic or structural damage caused by

construction-related vibration would be avoided or identified through a monitoring program and repaired as necessary to its pre-construction condition. Therefore, following the implementation of M-NOI-3a and M-NOI-3b, construction vibration impacts from the 30 Van Ness Avenue Project would be reduced to a *less-than-significant* level.

Sleep Disturbance

With regard to annoyance from sleep disturbance impacts, a significant vibration impact related to annoyance (specifically, sleep disturbance) could occur when nighttime construction activities generate vibration levels that are strongly perceptible at sensitive receptor locations for a prolonged period of time. Construction activity for the 30 Van Ness Avenue Project would mostly occur during daytime hours, with few activities (such as concrete pours, crane erection, site maintenance, and material delivery and handling) occurring during nighttime hours. The activities proposed for nighttime hours would be similar to those discussed under the analysis of the Hub Plan (and would typically involve less earthmoving equipment than activities in the daytime). Equipment used during nighttime activities for the 30 Van Ness Avenue Project would include concrete trucks, concrete pumps, tractor trailer trucks, forklifts, loaders, water trucks, and welders. The type of equipment most likely to result in ground-borne vibration during nighttime construction would be a loader, which could generate vibration levels similar to a small backhoe (refer to **Table 3.C-10**, p. 3.C-29). At a distance of 60 feet (the distance to the nearest occupied residential structure), vibration levels from this type of equipment (approximately 0.001 PPV in/sec) would be below any of the perceptibility criteria shown in **Table 3.C-8**, p. 3.C-19. In addition, equipment would most often be operating much farther from the residential land uses than this distance. Because nighttime construction activities for the 30 Van Ness Avenue Project would not be expected to exceed applicable vibration criteria related to annoyance, vibration impacts related to annoyance would be *less than significant*.

98 Franklin Street Project

Damage to Structures

Construction of the 98 Franklin Street Project would involve the use of construction equipment that could generate ground-borne vibration. The project site is surrounded by development, including some historic structures. The closest potentially historic resources to the site are the residential complexes located south of the site, 20 Franklin Street, and 1580–1598 Market Street. The closest of these is immediately adjacent to the project site. In addition, 50 Oak Street, 55 Oak Street, and 57 Oak Street are also potentially historic resources. These are located across the street diagonally from the project site, at a distance of approximately 75 feet from the project site's northern perimeter.

Typical vibration levels associated with heavy-duty construction equipment at a reference distance of 25 feet and other distances are shown in **Table 3.C-10**, p. 3.C-29. The most vibration-intensive types of construction equipment proposed for the 98 Franklin Street Project are the drill and large bulldozer.

The potentially historic resources at 50 Oak Street, 55 Oak Street, and 57 Oak Street, which would fall under the category of historic and some old buildings, are approximately 75 feet from the project's northern perimeter. A drill and a large bulldozer could both generate ground-borne vibration levels of 0.017 PPV in/sec at a distance of 75 feet. Therefore, vibration levels from equipment proposed for use at the 98 Franklin Street project site would be below the applicable damage criterion (or 0.25 PPV in/sec for historic and some old buildings) at a distance of 75 feet.

20 Franklin Street, and 1580–1598 Market Street are located directly south of the project site. At times, vibration-generating activities may not occur near the project perimeter. Activities that occur farther away from the southern perimeter of the project site would be less likely to result in damage-related vibration effects. For example, at a distance of 15 feet from nearby structures, vibration levels from the use of a large bulldozer or drill would be approximately 0.192 PPV in/sec. This is below the vibration damage criteria for all types of buildings in the project area. Should vibration-generating construction activity occur at least 15 feet away from nearby structures, impacts related to potential damage would be less than significant. However, it is possible that construction activities could occur as close as 1 to 3 feet away from the neighboring property located directly east of the project site.

With regard to potential damage effects on adjacent structures, **Table 3.C-25** shows vibration levels from equipment proposed for the 98 Franklin Street Project at distances of approximately 1 to 3 feet. At a distance of 3 feet from nearby structures, it is likely that vibration effects could be substantial. For example, a large bulldozer or auger drill could result in a vibration level of 2.141 PPV in/sec at a distance of 3 feet. This is in excess of the 0.5 PPV in/sec damage criterion for new residential or modern industrial/commercial buildings, the 0.3 PPV in/sec criterion for older residential structures, and the 0.25 PPV in/sec criterion for historic and some old buildings. The adjacent building is considered to be in the category of historic and some old buildings, so the 0.25 PPV in/sec criterion would apply. Should vibration-generating construction equipment be used even closer (e.g., a drill may be used as close as 1 foot from the adjacent structure), vibration levels would be even greater. Refer to **Table 3.C-25** for the expected vibration levels from construction equipment proposed for use at a distance of 1 foot.

Because the equipment proposed for project construction would generate ground-borne vibration levels of up to 2.141 PPV in/sec at a distance of 3 feet, and even greater levels should equipment be required for use at closer distances (e.g., 1 foot), vibration levels from project construction would be expected to exceed the damage criteria for all building types at the adjacent structures (located south of the project site). Potential vibration-related damage impacts would be considered *significant* for the 98 Franklin Street Project.

TABLE 3.C-25. VIBRATION LEVELS FOR 98 FRANKLIN STREET PROJECT CONSTRUCTION EQUIPMENT

Equipment	PPV at 1 Foot	PPV at 3 Feet
Drill	11.13	2.14
Large bulldozer	11.13	2.14
Loaded trucks	9.50	1.83
Jackhammer	4.375	0.84
Small bulldozer	0.375	0.07

Source: Federal Transit Administration, 2018, Transit Noise and Vibration Impact Assessment, FTA Report No. 0123, https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf, accessed: December 31, 2018.

Mitigation Measures

Mitigation M-NOI-3a and M-NOI-3b, described previously for the Hub Plan, would also be required for the 98 Franklin Street Project.

Significance after Mitigation

Mitigation Measures M-NOI-3a and M-NOI-3b, described previously under the analysis for the Hub Plan, would be required for construction of the 98 Franklin Street Project. Implementation of these mitigation measures would ensure that cosmetic or structural damage caused by construction-related vibration would be avoided or identified through a monitoring program and repaired as necessary to return any damaged structure to its pre-construction condition. Therefore, following the application of M-NOI-3a and M-NOI-3b, construction vibration impacts from the 98 Franklin Street Project would be reduced to *less-than-significant* levels.

Sleep Disturbance

With regard to annoyance from sleep disturbance impacts, a significant vibration impact related to annoyance (specifically, sleep disturbance) could occur when nighttime construction activities generate vibration levels that are strongly perceptible at sensitive receptor locations for a prolonged period of time. Construction activity for the 98 Franklin Street Project would occur mostly during daytime hours, with few activities (such as concrete pours, crane erection, and street utility work) occurring during nighttime hours. The activities proposed for nighttime hours would be similar to those discussed under the analysis of the Hub Plan (and would typically involve less earthmoving equipment than daytime activities). Equipment used during nighttime activities for the 98 Franklin Street Project would include concrete mixers, concrete pumps, concrete saws, a forklift, a mobile crane, and an excavator. The type of equipment most likely to result in ground-borne vibration during nighttime construction would be the excavator, which could generate vibration levels similar to that of a small backhoe (refer to **Table 3.C-10**, p. 3.C-29).

It is expected that nighttime construction work would typically not occur closer than 5 feet from the adjacent occupied structures south of the project site. At a distance of 5 feet, the vibration level from an excavator (or small bulldozer) would be approximately 0.034 PPV in/sec. This is below the strongly perceptible vibration criterion of 0.10 PPV in/sec for continuous/frequent intermittent sources. Because vibration-generating construction activity for the 98 Franklin Street Project would not be expected to result in strongly perceptible vibration at adjacent residences during nighttime hours, vibration impacts related to annoyance would be *less than significant* for the 98 Franklin Street Project.

OPERATION

Impact NOI-4. During operation, the Hub Plan would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards. (Less than Significant with Mitigation)

The Hub Plan

Vehicular Traffic Noise

Implementation of the Hub Plan would have the potential to lead to an increase in vehicular traffic in the vicinity of the Hub Plan area, as detailed in Section 3.B, Transportation and Circulation. Potential vehicular traffic noise increases from baseline (2020) conditions without Hub Plan implementation to baseline (2020) with Hub Plan implementation were evaluated.

As described previously under the *Methodology for Analysis of Operational Noise* subsection, a screening analysis was conducted to determine if any roadway segments would have a doubling of traffic from baseline (2020) to baseline (2020) with Hub Plan conditions. No roadway segments would experience a doubling of traffic. Although no segments were determined to have a doubling of traffic (and therefore, no segment would be expected to have a 3 dB increase), the roadway segments where project-generated vehicular traffic would increase total roadway volumes by 55 percent or more (15 roadway segments out of 322 studied) were quantitatively modeled. The modeled baseline no-project vehicular traffic noise levels were compared to baseline with-project conditions for 2020. Refer to Appendix E for the vehicular traffic percent increases for all 322 segments and for modeling results of the 15 segments with a greater than 55 percent increase in vehicular traffic as a result of Hub Plan implementation.

All of the 15 modeled roadway segments, as listed in **Table 3.C-26**, where vehicular traffic would increase by 55 percent or more with Hub Plan implementation are street segments with relatively small baseline no-project vehicular traffic volumes. For example, the greatest modeled L_{dn} noise level along any of these segments for the baseline (2020 no-plan) conditions was 56.4 dBA L_{dn} (along Brady Street, from Colton to Otis streets).

TABLE 3.C-26. ANALYSIS OF HUB PLAN TRAFFIC NOISE IMPACTS

Roadway	Segment Location	2020 No-Plan Baseline dBA L_{dn}	2020 With Plan dBA L_{dn}	Increase from Baseline No Plan to Baseline plus Plan dB
Julian Avenue	14 th Street to 15 th Street	47.1	48.6	1.5
Plum Street	Mission Street to South Van Ness Avenue	50.8	53.4	2.6
Lafayette Street	Natoma Street to Howard Street	52.2	53.9	1.7
Lafayette Street	Minna Street to Natoma Street	52.2	53.9	1.7
Minna Street	Lafayette Street to 11 th Street	43.8	43.9	0.2
Lafayette Street	Mission Street to Minna Street	49.6	52.3	2.7
Erie Street	East of Mission Street	47.3	49.5	2.3
12 th Street	Market Street to Otis Street	44.9	45.7	0.8
Jessie Street	South of McCoppin Street	48.4	51.1	2.8
Brady Street	Colton Street to Otis Street	56.4	58.3	1.8
Hickory Street	Franklin Street to Van Ness Avenue	47.2	49.2	2.0
Linden Street	Gough Street to Franklin Street	44.3	45.7	1.4
Linden Street	Octavia Street to Gough Street	44.3	45.7	1.4
Octavia Street	Waller Street to Market Street	45.6	47.3	1.7
Mission Street	Duboce Street to halfway toward Plum Street	50.5	52.3	1.7

Roadway segments where traffic volumes would increase by 55 percent or more are on relatively smaller (and quieter) streets; the more heavily trafficked segments (with higher existing or baseline volumes) would require a much greater increase in vehicular traffic volumes to result in a 55 percent increase in overall volume. Because of the transit-oriented and urbanized nature of the Hub Plan area, as well as the available capacity on streets, the level of development that could occur is not enough to significantly increase traffic noise.

As shown in **Table 3.C-26**, p. 3.C-66, project-generated vehicular traffic would increase vehicular traffic noise along the 15 modeled segments between 0.2 dB and 2.8 dB. Note that, as described in the methodology section, this EIR considers any increase in traffic noise of 3 dB or greater to be a significant impact. Also as shown in **Table 3.C-26**, p. 3.C-66, all traffic-noise increases resulting from implementation of the Hub Plan would be below 3 dB, which is also the level considered barely perceptible in laboratory environments. For these reasons, the Hub Plan would not result in a substantial permanent increase in ambient noise levels. Operational traffic noise impacts resulting from the Hub Plan would be *less than significant*.

The Siting of Noise-Generating Uses

Subsequent development under the Hub Plan could result in the siting of noise sources, such as places of entertainment, emergency generators, HVAC and mechanical equipment, new outdoor gathering spaces, and loading areas, among other noise-generating uses.

HVAC equipment can produce sound levels in the range of 70 to 75 dBA at 50 feet, depending on the size of the equipment.²⁷ Subsequent development projects under the Hub Plan would require HVAC systems and could be located at least this close to existing noise-sensitive receptors. Note that ambient noise levels in the Hub Plan area vary greatly, with short-term measurements recording L_{eq} noise levels of between approximately 63 and 72 dBA. Therefore, depending on the ambient noise level in the vicinity of a subsequent development project and the distance between HVAC equipment and noise-sensitive land uses, noise from HVAC equipment at subsequent development projects under the Hub Plan could result in noise levels in excess of section 2909(a) and (b) of the noise ordinance (i.e., 5 dB above ambient noise levels at residential property planes, 8 dB above ambient at commercial/industrial property planes).²⁸ In addition, depending on the proximity of HVAC equipment to nearby receptors, it is possible that HVAC equipment could be installed close enough to residential receptors that resultant interior noise levels could exceed the 55 dBA daytime (7 a.m. to 10 p.m.) and 45 dBA nighttime (10 p.m. to 7 a.m.) section 2909(d) noise ordinance limits at nearby buildings. For example, a noise level of 75 dBA L_{eq} , the upper range of noise from HVAC equipment at 50 feet, is 30 dB above the 45 dBA L_{eq} nighttime noise criterion for fixed equipment. Based on typical residential buildings within the city, a 25 dB noise reduction

²⁷ Hoover and Keith, *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*, 2000, Houston, TX.

²⁸ HVAC noise of 70 to 75 dBA L_{eq} at a distance of 50 feet would result in a 7 to 12 dB increase over an ambient noise level of 63 dBA.

with windows closed can be assumed. Subtracting 25 dB from the 75 dBA L_{eq} would yield a noise level of 50 dBA L_{eq} at a distance of 50 feet from equipment. This noise level is in excess of the interior noise standard described above for nighttime hours. Although equipment would often be located farther than this distance from offsite receptors, it is possible that it could be close enough to result in noise that would exceed the nighttime interior noise limit of section 2909(d). HVAC equipment installed during subsequent development projects under the Hub Plan could therefore result in noise levels that would be in excess of noise ordinance standards.

Although fixed stationary sources are subject to the noise limits in article 29, there is no permit approval process to ensure that HVAC equipment would meet the standards in article 29 prior to installation of such equipment. Instead, enforcement of article 29 would occur in response to complaints received by the City. That is, if a complaint is received, either the public health department or police department, depending on the noise source, would be dispatched to determine whether a violation of the noise ordinance exists and coordinate with the property owner(s) on the appropriate abatement methods.

With regard to emergency generators, a 1,500-kilowatt (kW) generator could generate a noise level of 74 dBA at a distance of 7 meters, or 23 feet.²⁹ Generators are typically housed in a generator or plant room and usually not adjacent to residences. In addition, generator testing would occur very infrequently, most likely on the order of approximately one hour per month, and no more than 50 hours per year, in accordance with air district permits (see Section 3.D, Air Quality). Therefore, noise from testing individual backup emergency generators would most likely not result in a substantial temporary increase in ambient noise levels. For these reasons, noise impacts from emergency generator testing would be *less than significant*.

Other potential sources of noise, such as outdoor use areas with amplified music and loading areas, could also be included in subsequent development projects enabled under the Hub Plan (loading areas in the interior of a building would not be expected to substantially increase ambient noise levels). Although some noise sources are regulated by article 29, article 29 regulation occurs in response to complaints received by the City. Because this process is typically complaint based, it is possible that noise sources regulated by article 29 could be installed and operated out of compliance with article 29 regulations. Also, there are several noise-generating sources that may be included in subsequent development projects under the Hub Plan that are not regulated by article 29, such as noise from loading areas. Therefore, the potential exists for these noise sources to generate a temporary or permanent increase in noise levels in excess of the noise ordinance standards. Therefore, noise impacts from the siting of noise-generating uses would be considered *significant*.

²⁹ Cummins Power Generation Specification Sheet, Mobile Power, 1500 kW, 2013.

Mitigation Measures

M-NOI-4: *Noise Analysis for Projects in Excess of Applicable Noise Standards.* To reduce potential conflicts between existing sensitive receptors and new noise-generating uses developed under the Hub Plan, a noise analysis shall be required for new development that includes noise-generating activities or equipment (e.g., heating, ventilation, and air-conditioning equipment; outdoor gathering areas; places of entertainment) with the potential to generate noise levels substantially in excess of ambient noise levels or any applicable standards. This analysis shall include, at a minimum, a site survey to identify potential noise-sensitive uses within 900 feet of and with a direct line of sight to the subsequent development project site. It shall also include at least one 24-hour noise measurement (with maximum noise level readings that permit an accurate description of the maximum levels reached during nighttime hours). This analysis shall be conducted prior to the first project approval action.

The analysis shall be prepared by persons qualified in acoustical analysis and/or engineering and shall demonstrate with reasonable certainty that the proposed use would not adversely affect nearby noise-sensitive uses, would not substantially increase ambient noise levels, and would not result in a noise level in excess of any applicable standards. All recommendations from the acoustical analysis necessary to ensure that noise sources would meet applicable requirements of the noise ordinance and/or not result in substantial increases in ambient noise levels shall be incorporated into the building design and operations. Should such concerns be present, the San Francisco Planning Department may require the completion of a detailed noise control analysis (by a person qualified in acoustical analysis and/or engineering) that includes the incorporation of noise reduction measures (including quieter equipment, construction of barriers or enclosures, etc.) prior to the first project approval action.

Significance after Mitigation

Implementation of Mitigation Measure M-NOI-4 would ensure that the building design, enclosure design, and/or changes in operations resulting from implementation of Mitigation Measure M-NOI-4 would comply with the applicable criteria in the municipal code. This impact would be considered *less than significant with mitigation* for subsequent development projects under the Hub Plan.

Streetscape and Street Network Improvements

Vehicular Traffic Noise

Streetscape and street network improvements would not be expected to result in an increase in vehicular traffic noise in the Hub Plan area. In order for streetscape and street network improvements to result in 3 dB increase in noise from vehicular traffic along any roadway, a

doubling of vehicular traffic along that roadway would have to occur. This could be achieved either by doubling the number of vehicles on a given street or by bringing the vehicular traffic lanes twice as close to noise-sensitive land uses (i.e., halving the distance between the lanes and the receptors).

Because the streetscape and street network improvements would not generate any vehicle trips and because they would not move vehicular traffic lanes closer to existing noise-sensitive receptors, the streetscape and street network improvements would not result in increases in operational traffic noise. Therefore, impacts related to vehicular traffic noise increases resulting from streetscape and street network improvements would be *less than significant*.

Impact NOI-5. Operations of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards. (Less than Significant)

30 Van Ness Avenue Project

Vehicular Traffic Noise

The vehicular traffic noise analysis for the Hub Plan can be used to determine potential project-specific vehicular traffic noise impacts for the 30 Van Ness Avenue Project. This is because the Hub Plan traffic analysis upon which the vehicular traffic noise analysis was based includes vehicle trips that would be generated by the 30 Van Ness Avenue Project. Therefore, because the Hub Plan (which assumes growth from development of the 30 Van Ness Avenue Project) would not result in a significant noise increase from traffic along any of the 322 analyzed roadway segments, the 30 Van Ness Avenue Project also would not result in significant traffic noise increases. Traffic noise impacts from the 30 Van Ness Avenue Project would be *less than significant*.

HVAC Equipment

The proposed 30 Van Ness Avenue Project would include the use of HVAC, boilers, and associated pumps to provide heating and air to the subsequent development projects. All HVAC equipment would be located in a single equipment room on a middle level of a proposed building, in a floor-specific fan room, or on or near the roof of a proposed building and behind some form of solid shielding.

HVAC equipment noise increases over the ambient noise level must be limited to no more than a 5 or 8 dB increase for residential or commercial properties, respectively, per the City noise ordinance. In addition, stationary operational noise is limited by section 2909(d) of the noise ordinance, which provides that noise at residential interiors cannot exceed 55 dBA during daytime hours (7 a.m. to 10 p.m.) and 45 dBA during nighttime hours (10 p.m. to 7 a.m.).

Noise from HVAC equipment can vary, depending on the size of the equipment. The exact HVAC equipment proposed for use has not yet been selected. However, this analysis assumes that HVAC equipment similar to standard package units would be used for the project. A standard HVAC unit would produce sound levels in the range of 70 to 75 dBA at 50 feet.³⁰

Noise from HVAC equipment in the plant room would not be expected to exceed any applicable standards (i.e., interior noise level of 55 dBA during daytime hours, interior noise level of 45 dBA during nighttime hours, an 8 dB increase over ambient noise at the property plane for noise generated by commercial/residential mixed-use land uses) because of the noise reduction provided by the physical building. However, because some HVAC equipment could be located on the roof, this analysis assesses the potential for noise levels to exceed the noise ordinance standards of section 2909(b) and (d). The rooftop HVAC equipment for the 30 Van Ness Avenue Project would be enclosed or screened with solid walls or screens that would block the line of sight between the property plane and the equipment. Effective noise barriers typically reduce noise levels by 5 to 10 dB, so it can be assumed that this solid wall or screen would result in HVAC equipment noise reduction of at least 5 dB.³¹

The project site is 65 feet from the residential uses across Fell Street. Noise from unshielded HVAC equipment at a distance of 65 feet could be in the range of 68 to 73 dBA (based on the noise levels of a standard HVAC unit at 50 feet). However, the proposed project is expected to be 45 stories, and the adjacent residential use (located at 100 Van Ness Avenue) is only 29 stories. Noise levels would be reduced at the nearby residence because the HVAC equipment would be located an additional 200 feet away, approximately, because of the differing building heights, resulting in additional noise reduction. Noise at a distance of 200 feet (or at the exterior of the top floor of the adjacent residential building) would be in the range of 58 to 63 dBA at a distance of 200 feet, based on the source noise level of 70 to 75 dBA at 50 feet. The noise level would be further reduced by 5 dB³² because of the solid screens or walls that would be located around the rooftop HVAC equipment, resulting in noise levels in the 53 to 58 dBA range at noise-sensitive receptors at 100 Van Ness Avenue.

Because section 2909(d) of the noise ordinance pertains to interior noise, a 15 dB reduction can be applied to interior noise (with windows open) to determine what interior noise would be at the adjacent building. The exterior noise levels of 53 to 58 dBA would be reduced to between 38 and 43 dBA with windows open, based on this 15 dB exterior-to-interior reduction. Therefore, noise levels at the nearby noise-sensitive land uses would not be expected to exceed the daytime or nighttime interior noise standards of 55 dBA and 45 dBA, respectively.

³⁰ Hoover and Keith, *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*, 2000, Houston, TX.

³¹ Federal Highway Administration, *Highway Traffic Noise Barriers at a Glance*, https://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/keepdown.cfm, accessed July 5, 2019.

³² Ibid.

With regard to section 2909(b) of the noise ordinance (8 dB above ambient noise levels at the property plane for commercial/residential mixed-use land uses) and as described above, a standard HVAC unit can produce sound levels in the range of 70 to 75 dBA at 50 feet.³³ At a distance of 25 feet, noise levels from HVAC equipment would be in the range of 76 to 81 dBA; at a distance of approximately 13 feet, noise levels would be in the range of 82 to 87 dBA. With the incorporation of the solid wall or screen located around, and blocking the line of sight to, the HVAC equipment, noise levels would be reduced by an additional 5 dB. Resulting HVAC noise levels would be in the range of 77 to 82 dBA. In this area, the 24-hour L_{dn} ambient noise level near the project site was estimated to be approximately 77.8 dBA (LT-5 from **Table 3.C-4**, p. 3.C-13). Therefore, even at a distance of 13 feet, the upper limits of the estimated HVAC noise with the incorporation of the solid screen or wall (82 dBA) would exceed the ambient noise level (77.8 dBA) by only approximately 4 dB, which is below the allowable 8 dB increase at the property plane.

Although the precise location of the HVAC equipment for the proposed project is not known at this time, HVAC equipment is expected to be located far enough from the property plane such that noise levels would not exceed the ambient level by more than 8 dB. Therefore, noise from the proposed project's HVAC equipment would be expected to comply with section 2909(b) of the noise ordinance. In addition, as described previously, HVAC noise would also be expected to comply with section 2909(d) of the noise ordinance during daytime and nighttime hours. For these reasons, impacts related to HVAC noise levels potentially exceeding sections 2909(b) and (d) of the noise ordinance are considered *less than significant*.

Emergency Generators

The proposed 30 Van Ness Avenue Project would have up to two generators on the rooftop, on either the ninth or the 13th floor, to supply electricity to the building and facilities during a power outage. The proposed generators would be tested during daytime hours (7 a.m. to 8 p.m.). These generators may be tested up to 40 or 50 hours per year. For the purposes of this analysis, it is conservatively assumed that each generator would be tested between one and four hours per month.

Two 1,500 kW generators are proposed for use. A 1,500 kW Cummins generator generates a noise level of 74 dBA at a distance of 7 meters, or 23 feet.³⁴ The nearest offsite residences are approximately 60 feet from the project site; therefore, noise levels at these locations would be somewhat reduced. Additional noise attenuation would be provided in the form of the enclosure or screen proposed for use around the generators. This would be designed to block the line of sight between the generator and nearby noise-sensitive land uses.

³³ Hoover and Keith, *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*, 2000, Houston, TX.

³⁴ Cummins Power Generation Specification Sheet, Mobile Power, 1500 KW, 2013.

Because the generator would create a noise level of 74 dBA at 23 feet, additional noise reduction would be provided by the barriers or enclosures that would block the lines of sight between the generator and adjacent land uses, and the ambient noise levels would be louder than the generator noise, or approximately 77.8 dBA (LT-5 from **Table 3.C-4**, p. 3.C-13), it is unlikely that noise from the generator would result in a substantial temporary or permanent increase in noise levels. Furthermore, testing of the generators would occur infrequently (between one and four hours per month) and only during daytime hours when people are less sensitive to noise. Therefore, noise impacts from the intermittent and temporary testing of emergency generators would be *less than significant* for the 30 Van Ness Avenue Project.

Other Noise-Generating Uses

With regard to operational sources of noise other than traffic and mechanical equipment, outdoor use spaces and loading areas may have the potential to generate noise. However, there are no expected outdoor use spaces for the 30 Van Ness Avenue Project where large crowds would gather or where formal events would take place. Though there may be small-scale events, such as social gatherings, in the project's ground-floor open space and in the project's podium open space, these events would be typical of office and residential uses and would not involve amplified music. For these reasons, noise from gatherings or events at outdoor use spaces for the 30 Van Ness Avenue Project would not be expected to result in substantial increases in ambient noise levels, and the impact would be *less than significant*.

Although loading areas would be developed as a part of the 30 Van Ness Avenue Project, which would include the use of trucks for residential move in/move out as well as office and residential deliveries, the loading and unloading of goods is a common occurrence in the city. Although backup alarms can be a source of annoyance, commercial and passenger loading would occur either within the proposed 106-foot on-street loading zone along the project frontage on Van Ness Avenue (which is relatively far from offsite sensitive land uses and on a relatively busy street) or at an off-street loading zone accessed from Fell Street (located inside the building). Because of the distances between the loading zone along Van Ness Avenue and the relatively elevated ambient noise level along this major thoroughfare, the intermittent loading operations at this location would not be expected to result in excessive noise at nearby noise-sensitive land uses. Loading operations located inside the building would also not result in excessive noise because noise would be shielded by the building. Therefore, impacts from short-term and intermittent loading activity for the 30 Van Ness Avenue Project would be *less than significant*.

98 Franklin Street Project

Vehicular Traffic Noise

The vehicular traffic noise analysis for the Hub Plan can be used to determine potential project-specific vehicular traffic noise impacts for the 98 Franklin Street Project; this is because the traffic analysis upon which the Hub Plan vehicular traffic noise analysis was based includes vehicle

trips that would be generated by the 98 Franklin Street Project. Therefore, because the Hub Plan (which assumes growth from development of the 98 Franklin Street Project) would not result in a significant noise increase from traffic along any of the 322 analyzed roadway segments, the 98 Franklin Street Project also would not result in significant traffic noise increases. Traffic noise impacts from the 98 Franklin Street project would be *less than significant*.

HVAC Equipment

The 98 Franklin Street Project would include the use of HVAC boilers and associated pumps to provide heating and air to the subsequent development projects. All HVAC equipment would either be enclosed and located in mechanical, electrical, or plumbing rooms within the building, or located on the roof of the proposed building. Solid shielding would be provided around the rooftop HVAC equipment.

As described above, HVAC equipment can produce sound levels in the range of 70 to 75 dBA at 50 feet, depending on the size of the HVAC equipment.³⁵ Noise from HVAC equipment within the building would be reduced greatly by intervening walls between offsite noise-sensitive land uses. The shielding provided by the building materials would reduce noise substantially, and the likelihood of interior HVAC equipment being audible outside of the building is low. However, rooftop HVAC equipment noise must be assessed. The rooftop HVAC equipment for the 98 Franklin Street Project would be screened with solid walls or screens that would block the line of sight between the property plane and the equipment. Effective noise barriers typically reduce noise levels by 5 to 10 dB, so it can be assumed that this solid wall or screen would result in an at least a 5 dB reduction in HVAC equipment noise.³⁶ The exterior noise levels of 53 to 58 dBA would be reduced to 38 to 43 dBA with windows open, based on this 15 dB exterior-to-interior reduction. Therefore, noise levels at the adjacent noise-sensitive land uses would not be expected to exceed the daytime or nighttime interior noise standards of 55 dBA and 45 dBA, respectively.

With regard to section 2909(b) of the noise ordinance (8 dB above ambient noise levels at the property plane for commercial/residential mixed-use land uses) and as described above, a standard HVAC unit can produce sound levels in the range of 70 to 75 dBA at 50 feet.³⁷ At a distance of 25 feet, noise levels from HVAC equipment would be in the range of 76 to 81 dBA; at a distance of approximately 13 feet, noise levels would be in the range of 82 to 87 dBA. The 24-hour ambient noise level near the project site was estimated to be approximately 74.3 dBA L_{dn}. With inclusion of the 5 dB reduction from the solid wall or screen that would shield the equipment, noise levels at 13 feet would be reduced to the range of 77 to 82 dBA. It is likely that HVAC equipment would be located even farther from the property plane than this distance.

³⁵ Hoover and Keith, *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*, 2000, Houston, TX.

³⁶ Federal Highway Administration, *Highway Traffic Noise Barriers at a Glance*, https://www.fhwa.dot.gov/environment/noise/noise_barriers/design_construction/keepdown.cfm, accessed July 5, 2019.

³⁷ Hoover and Keith, *Noise Control for Buildings, Manufacturing Plants, Equipment, and Products*, 2000, Houston, TX.

However, even at a distance of 13 feet, the upper limits of the estimated HVAC noise (82 dBA) would not exceed the ambient noise level (approximately 74.3 dBA) by more than 8 dB.

Although the precise location of the HVAC equipment for the proposed project is not known at this time, HVAC equipment would very likely be located far enough from the property plane such that noise levels would not exceed the ambient level by more than 8 dB. Therefore, noise from the proposed project's HVAC equipment would be expected to comply with section 2909(b) of the noise ordinance. In addition, as described previously, HVAC noise would also be expected to comply with section 2909(d) of the noise ordinance during daytime and nighttime hours. For these reasons, impacts related to HVAC noise levels exceeding section 2909(b) and (d) of the noise ordinance are considered *less than significant*.

Emergency Generators

The proposed 98 Franklin Street Project would have a single emergency generator that would be located in a generator room on the second floor of the building. The venting for the generator would be piped to the fifth floor. The proposed generator would be tested regularly during daytime hours. For the purposes of this analysis, it is assumed that the generator would be tested between one and four hours per month, or up to 40 to 50 hours per year.

A 2,000 kW generator is proposed for use at the project site. A 2,000 kW Cummins generator generates a noise level of 78 dBA at a distance of 7 meters, or 23 feet.³⁸ The nearest offsite residences to the proposed generator room would be located in the currently under-construction 1554 Market Street building, approximately 10 feet from the project site. Although this residential building would be adjacent to the proposed project and the proposed emergency generator room, it is expected that the generator would be somewhat set back from the wall in the generator room. Noise reduction would occur from the walls of the proposed project and the adjacent building such that noise from temporary and intermittent testing of the generator would be greatly reduced. Therefore, because the generators would be shielded and the testing would occur infrequently, any temporary increases in noise would not be considered substantial. Impacts from the intermittent and temporary testing of the emergency generator on nearby noise-sensitive land uses would be *less than significant*.

Other Noise-Generating Uses

With regard to operational sources of noise besides traffic and mechanical equipment, outdoor use spaces and loading areas may have the potential to generate noise. However, there are no expected outdoor use spaces for the 98 Franklin Street Project where large crowds would gather or events would take place. Though there may quarterly events that could involve up to 100 people, these events would be held indoors and would not involve the use of amplified music.

³⁸ Cummins Power Generation Specification Sheet, Mobile Power, 2000 KW, 2017.

Therefore, noise from gatherings or events at the outdoor use space for the 98 Franklin Street Project would be *less than significant*.

Although loading areas would be developed as a part of the 98 Franklin Street Project, (which would include the use of trucks for residential move in/move out as well as school, retail, and residential deliveries) and backup alarms can be a source of annoyance, the loading and unloading of goods is a common occurrence in the city. Commercial and passenger loading would occur within one off-street truck loading space for freight as well as two off-street service-vehicle spaces provided in basement level 1 of 98 Franklin Street. Although the project proposes white-curb loading zones on both Franklin and Oak streets, trucks would not be expected to use these on-street loading zones frequently because they would have access to the off-street loading zones in the basement of the building. Because truck deliveries and loading activities would be expected to occur in the basement for the proposed 98 Franklin Street Project, and because loading is a common occurrence in the city, impacts related to loading noise at the 98 Franklin Street project site would be *less than significant*.

CUMULATIVE IMPACTS

The cumulative context for noise and vibration impacts is the Hub Plan area, including the areas surrounding the individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Specifically, the geographic scope of analysis for cumulative noise and vibration construction impacts, as well as stationary noise sources, encompasses cumulative projects within approximately 1,000 feet of individual project sites and the Hub Plan area. Beyond 1,000 feet, the contributions of noise from other projects would be greatly attenuated through both distance and intervening structures, and their contribution would be expected to be minimal. The analysis considers vehicular traffic noise from cumulative growth as well as cumulative construction noise and vibration from other potential projects in the Hub Plan area.

Impact C-NOI-1. Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards. (Significant and Unavoidable with Mitigation)

Construction noise is a localized impact that reduces as distance from the noise source increases. In addition, intervening features (e.g., buildings) between construction areas and nearby noise-sensitive land uses result in additional noise attenuation by providing barriers that break the line of sight between noise-generating equipment and sensitive receptors. These barriers can block sound wave propagation and somewhat reduce noise at a given receiver.

SUBSEQUENT DEVELOPMENT UNDER THE HUB PLAN

Construction activities from subsequent development projects enabled under the Hub Plan could coincide with other construction activity in the Hub Plan area. Nearby projects that may be under construction during construction of subsequent development projects under the Hub Plan include Better Market Street and specific projects such as 1629 Market Street, 1700 Market Street, 1740 Market Street, One Oak Street, 30 Otis Street, 42 Otis Street, and 10 South Van Ness Avenue. For a full list of other projects, refer to **Table 3-2**, p. 3-9, in Chapter 3.

Construction activity is a common occurrence in the urban environment. Although construction noise may be disruptive to persons located nearby, it would be temporary and intermittent and would vary, depending on the phases of construction. In addition, construction activities in the city would be required to comply with the San Francisco Noise Ordinance, which prohibits construction activities between 8 p.m. and 7 a.m. without a special nighttime noise permit and limits noise from any individual piece of construction equipment to 80 dBA at 100 feet, except for impact tools approved by the Department of Building Inspection or public works (limited to 80 dBA at 100 feet).

Because other construction may be occurring concurrently with construction of subsequent projects under the Hub Plan, noise-sensitive receptors near project sites could be exposed to noise from concurrent construction activities. In addition, construction for a certain project could begin very shortly after construction of a different project is completed. If this were to occur, construction noise from these consecutive construction projects would affect the same receptors for a longer period of time and could result in a more substantial noise effects compared with construction noise from a single project in isolation.

Although construction schedules for the projects listed in **Table 3-2**, p. 3-9, could change once construction of the development projects under the Hub Plan is under way, it is likely that at least some subsequent development projects under the Hub Plan would overlap with some of the projects listed in **Table 3-2**, p. 3-9. Because construction of subsequent development projects under the Hub Plan could combine with that of nearby projects (either by occurring concurrently and increasing noise levels or consecutively or increasing the duration of noise exposure), cumulative construction noise impacts would be considered significant.

With regard to the potential for subsequent development projects under the Hub Plan to have a cumulatively considerable contribution to this cumulative construction noise impact, it is possible that individual construction projects could exceed the applicable criteria for overall construction noise, or that multiple projects under the Hub Plan could be under construction simultaneously or consecutively in close to the same sensitive receptors. Thus, without mitigation, construction of subsequent development projects enabled by the Hub Plan would result in a cumulatively considerable contribution to this cumulative impact.

Implementation of Mitigation Measure M-NOI-1a, Construction Noise Control Plan for Projects Within 250 Feet of a Noise-Sensitive Land Use, and M-NOI-1b, Site-Specific Noise Control Measures for Projects Involving Pile Driving, for the Hub Plan would reduce construction noise from subsequent development activities under the Hub Plan. However, because specific details of subsequent development projects under the Hub Plan (e.g., equipment types, duration of construction, proximity to sensitive receptors) are not known at this time, it is not possible to ensure that these mitigation measures would reduce the construction impacts of all subsequent development projects under the Hub Plan to less-than-significant levels. In addition, traffic Mitigation Measure TR-1, Construction Management Plan, would require subsequent projects that overlap other nearby construction projects to consult with applicable City departments to coordinate a construction management plan with the adjacent project(s). This would help reduce the severity of any disruption at adjacent land uses and could help reduce noise effects from construction-related traffic. However, although these mitigation measures could reduce the severity of potential noise effects during construction of multiple projects in the Hub Plan area, it cannot be stated with certainty that they would reduce cumulative impacts to less-than-significant levels. For these reasons, construction of subsequent development projects under the Hub Plan would be expected to result in a cumulatively considerable contribution to this cumulative construction noise impact. This cumulative impact is *significant and unavoidable with mitigation*. No additional mitigation measures have been identified.

STREETSCAPE AND STREET NETWORK IMPROVEMENTS

With regard to the proposed streetscape and street network improvements, construction activities would be short term (generally between four and 10 weeks for each individual improvement) and linear, with equipment not typically located near the same noise-sensitive land use for the duration of the construction period. Although the cumulative construction noise impact in the Hub Plan area would be considered significant, noise increases from construction activities for streetscape and street network improvements would not be considered substantial because of the comparatively short duration of such activities compared with the construction of development projects. Therefore, streetscape and street network improvements would not result in a cumulatively considerable contribution to this overall cumulative impact, and the impact would be *less than significant*.

30 VAN NESS AVENUE AND 98 FRANKLIN STREET PROJECTS

Construction activities for the 30 Van Ness Avenue and 98 Franklin Street projects could coincide with similar activities for other projects in the Hub Plan area. Because construction schedules for the projects listed in **Table 3-2**, p. 3-9, could change once construction of the individual development projects are under way, it is difficult to predict whether construction activities associated with nearby projects would overlap with those of the two individual development projects. However, based on the fact that other specific projects would be located in the immediate

vicinity of the two individual development project sites, it is likely that construction activities from some projects could either overlap with the two individual development projects' construction activities or occur consecutively. If projects located near one another occur in close succession, the overall duration of construction noise in the area would increase.

Because the construction impacts of the individual development projects could combine with those of nearby projects (either by occurring concurrently and increasing noise levels or occurring consecutively and increasing the duration of noise exposure), cumulative construction noise impacts would be considered significant. Because of the severity of construction noise impacts discussed above in Impact NOI-2, before mitigation, the individual development projects would result in a cumulatively considerable contribution to this cumulative impact.

Although implementation of Mitigation Measure M-NOI-1a for both the 30 Van Ness Avenue Project and 98 Franklin Street Project would reduce the direct construction noise impacts of these two projects, it is possible that these projects could result in a cumulatively considerable contribution to a significant cumulative construction noise impact, even with mitigation. This is largely because, although noise would be reduced with mitigation, a substantial number of projects could be under construction concurrently or consecutively with each of the individual projects, which would increase the intensity and duration of construction activity experienced by nearby receptors. In addition, as described under the Hub Plan, traffic Mitigation Measure TR-1, Construction Management Plan, would require subsequent projects that overlap other nearby construction projects to consult with applicable City departments to coordinate a construction management plan with the adjacent project(s). This would help reduce the severity of any disruption at adjacent land uses and could help to reduce noise effects from construction-related traffic for the two individual development projects. However, it would not reduce cumulative impacts related to construction noise for the two individual projects to less-than-significant levels. The contribution of both individual development projects with mitigation to the cumulative construction noise impact could therefore be considerable. This cumulative impact is *significant and unavoidable with mitigation*. No additional mitigation measures have been identified.

Impact C-NOI-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of excessive ground-borne vibration or ground-borne noise levels during construction. (Less than Significant)

With regard to the potential for a cumulative vibration-related damage impact to occur, because vibration impacts are based on instantaneous PPV levels, worst-case ground-borne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, instantaneous peak vibration levels do not combine in this way. Vibration from multiple

construction sites, even if they are located close to one another, would not be expected to combine to raise the maximum PPV. For this reason, the cumulative impact of construction vibration from multiple construction projects located near one another would generally not combine to increase vibration levels. In essence, vibration effects are highly localized.

Vibration effects resulting from construction of subsequent development projects under the Hub Plan (including streetscape and street network improvements) and the two individual development projects (which would not use pile drivers) would not be expected to combine with vibration effects from cumulative projects in the Hub Plan vicinity. Therefore, cumulative ground-borne vibration impacts related to both potential damage effects and annoyance would be considered *less than significant* for the Hub Plan (including the streetscape and street network improvements) and the two individual development projects.

Impact C-NOI-3. Operation of the Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards. (Less than Significant with Mitigation)

VEHICULAR TRAFFIC NOISE

To determine the potential cumulative noise impacts in the Hub Plan area, vehicular traffic volumes from the baseline 2020 scenario were compared to the 2040 with-project scenario. Because measured noise levels in the Hub Plan area were all greater than 60 dB, a cumulative traffic noise impact would occur if an increase of more than 3 dB from baseline (2020, no project) to future cumulative (2040, with project) noise levels occurs.

If a cumulative vehicular traffic noise impact is anticipated along a given roadway segment, then the proposed project's contribution to that impact must be assessed.

A preliminary screening analysis was conducted to determine which of the 322 analyzed roadway segments would experience a doubling of vehicular traffic (or more) from baseline 2020 no-project to 2040 with-project conditions (noting that this generally results in a noise increase of 3 dB). Of the 322 segments, 35 were determined to experience at least a doubling in traffic. Traffic noise for these 35 segments were quantitatively modeled. Refer to **Table 3.C-27** for the results of the cumulative traffic noise analysis.

As shown in **Table 3.C-27**, a significant cumulative impact would occur along 28 of the 35 quantitatively modeled street segments. To determine if the Hub Plan would result in a cumulatively considerable contribution to any of these cumulative traffic noise impacts, modeled results for the 2040 no-project scenario were compared to the 2040 with-project scenario. The incremental effect of the Hub Plan on cumulative traffic noise is shown in **Table 3.C-28**, p. 3.C-84.

As shown in **Table 3.C-28**, p. 3.C-84, the plan would result in a 0 to 0.4 dB increase in (or, in some cases, a decrease in) traffic noise along the segments determined to have potential cumulative traffic noise impacts. Therefore, although cumulative vehicular traffic noise impacts in the Hub Plan area may occur, the contribution of the Hub Plan would be minimal (less than a 0.4 dB increase). Traffic increases resulting from the Hub Plan would not result in a cumulatively considerable contribution to any cumulative vehicular traffic noise impacts.

With regard to streetscape and street network improvements, potential roadway changes would not result in increased noise because these improvements would not result in increased vehicle trips. In addition, these improvements would not reduce the separation between sensitive receptors and traffic lanes. For these reasons, the streetscape and street network improvements would not result in noise that would combine with noise from cumulative traffic to result in a significant cumulative impact. Impacts are *less than significant*.

THE SITING OF NOISE-GENERATING USES

Subsequent Development Projects under the Hub Plan

In general, most operational sources of noise do not generate noise that is perceptible far beyond the edge of a project site. However, it is possible that operational sources of noise for subsequent development projects under the Hub Plan, as well as other cumulative projects in the Hub Plan area, could generate noise in excess of allowable levels or result in a permanent increase in ambient noise levels. It is also possible noise-generating uses from subsequent development projects under the Hub Plan and other projects in the Hub Plan area could be located close enough to one another that operational (non-traffic) noise from multiple projects could combine and result in a cumulative noise impact. Therefore, because complete details about noise-generating uses for subsequent development projects under the Hub Plan and other nearby cumulative projects are not known, it is possible that noise from multiple subsequent development projects or sources could combine to cause a cumulative impact. Therefore, without mitigation, the Hub Plan would result in a cumulatively considerable contribution to this cumulative impact. Impacts are *significant*.

TABLE 3.C-27. CUMULATIVE TRAFFIC NOISE ANALYSIS

Roadway	Segment Location	2020 No-Plan	2040 with	2040 No Plan	Increase from	Cumulative Impact? ≥ 3 dB increase
		Baseline dBA L _{dn}	Plan dBA L _{dn}		2040 with Plan dB	
11 th Street	From Folsom Street to Harrison Street	51.5	54.9	55.2	3.4	Yes
11 th Street	From Kissing Street to Folsom Street	58.0	61.0	60.5	3.0	Yes
11 th Street	From Howard Street to Folsom Street	58.0	61.0	60.5	3.0	Yes
11 th Street	From Natoma to Howard Street	56.4	59.4	58.7	3.1	Yes
12 th Street	From Market Street to Otis Street	44.9	51.8	51.5	6.9	Yes
Brady Street	From Colton Street to Otis Street	55.5	58.6	57.8	3.1	Yes
Duboce Avenue	From Mission Street to Otis Street	50.5	53.5	52.9	3.0	Yes
Erie Street	East of Mission Street	47.2	50.0	49.5	2.8	No
Gough Street	From Market Street to Otis Street	48.4	52.0	51.2	3.6	Yes
Hayes Street	From Franklin Street to Van Ness Avenue	53.8	62.1	62.0	8.3	Yes
Hayes Street	Gough Street to Franklin Street	59.0	62.0	61.9	3.1	Yes
Hayes Street	From Octavia Street to Gough Street	51.1	57.5	57.4	6.4	Yes
Hickory Street	From Franklin Street to Van Ness Avenue	47.2	49.9	48.2	2.8	No
Ivy Street	From Octavia Street to Gough Street	48.5	55.2	55.1	6.8	Yes
Jessie Street	From 9 th Street to 10 th Street	49.5	55.5	55.5	6.1	Yes
Lafayette Street	From Mission Street to Minna Street	49.6	52.6	50.4	3.0	Yes
Linden Street	From Gough Street to Franklin Street	44.3	45.0	46.1	0.8	No
Linden Street	From Octavia Street to Gough Street	44.3	45.0	46.1	0.8	No
Minna Street	From 8 th Street to Julia Street	45.9	51.2	51.1	5.3	Yes
Minna Street	From Howard Street to 8 th Street	44.3	50.0	49.8	5.8	Yes
Minna Street	From Lafayette Street to 11 th Street	43.8	44.3	44.0	0.5	No

TABLE 3.C-27. CUMULATIVE TRAFFIC NOISE ANALYSIS

Roadway	Segment Location	2020 No-Plan	2040 with	2040 No Plan	Increase from	Cumulative
		Baseline	Plan		Baseline to	
		dBA L _{dn}	dBA L _{dn}	dBA L _{dn}	2040 with	≥ 3 dB
					Plan	increase
					dB	
Mission Street	From 10 th Street to Grace Street	61.3	67.5	67.3	6.2	Yes
Mission Street	From Grace Street to Washburn Street	61.3	67.5	67.3	6.2	Yes
Mission Street	From Washburn Street to 9 th Street	61.3	67.5	67.3	6.1	Yes
Natoma Street	From 7 th Street to 8 th Street	45.7	48.6	47.5	2.9	No
Oak Street	From Franklin Street to Van Ness Avenue	51.8	55.5	54.0	3.7	Yes
Octavia Street	From Haight Street to Waller Street (SB)	47.6	51.1	51.2	3.5	Yes
Octavia Street	From Rose Street to Haight Street	46.8	50.4	50.7	3.7	Yes
Octavia Street	From Page Street to Rose Street	46.8	50.5	50.8	3.7	Yes
Octavia Street	From Hayes Street to Linden Street (SB)	45.8	49.6	49.2	3.8	Yes
Octavia Street	Southbound south of Waller Street	45.6	50.1	50.0	4.5	Yes
Page Street	From Buchanan Street to Laguna Street	57.0	62.5	62.3	5.5	Yes
Plum Street	From Mission Street to South Van Ness Avenue	50.8	54.6	53.7	3.8	Yes
Stevenson Street	From McCoppin Street to Duboce Avenue	44.0	45.1	44.9	1.1	No
Valencia Street	From 15 th Street to 14 th Street	52.7	55.7	55.6	3.0	Yes

SB = southbound

TABLE 3.C-28. ANALYSIS OF CUMULATIVELY CONSIDERABLE CONTRIBUTIONS TO CUMULATIVE TRAFFIC NOISE IMPACTS

Roadway	Segment Location	2040 No Plan dBA L_{dn}	2040 with Plan dBA L_{dn}	Project/Plan Contribution Delta, dBA L_{dn}
11 th Street	From Folsom Street to Harrison Street	55.2	54.9	0.3
11 th Street	From Kissing Street to Folsom Street	60.5	61.0	-0.5
11 th Street	From Howard Street to Folsom Street	60.5	61.0	-0.5
11 th Street	From Natoma to Howard Street	58.7	59.4	-0.7
12 th Street	From Market Street to Otis Street	51.5	51.8	-0.2
Brady Street	From Colton Street to Otis Street	57.8	58.6	-0.8
Duboce Avenue	From Mission Street to Otis Street	52.9	53.5	-0.6
Gough Street	From Market Street to Otis Street	51.2	52.0	-0.8
Hayes Street	From Franklin Street to Van Ness Avenue	62.0	62.1	-0.1
Hayes Street	Gough Street to Franklin Street	61.9	62.0	-0.1
Hayes Street	From Octavia Street to Gough Street	57.4	57.5	-0.1
Ivy Street	From Octavia Street to Gough Street	55.1	55.2	-0.1
Jessie Street	From 9 th Street to 10 th Street	55.5	55.5	0.0
Lafayette Street	From Mission Street to Minna Street	50.4	52.6	-2.2
Minna Street	From 8 th Street to Julia Street	51.1	51.2	-0.1
Minna Street	From Howard Street to 8 th Street	49.8	50.0	-0.2
Mission Street	From 10 th Street to Grace Street	67.3	67.5	-0.2
Mission Street	From Grace Street to Washburn Street	67.3	67.5	-0.2
Mission Street	From Washburn Street to 9 th Street	67.3	67.5	-0.2
Oak Street	From Franklin Street to Van Ness Avenue	54.0	55.5	-1.5
Octavia Street	From Haight Street to Waller Street (SB)	51.2	51.1	0.1
Octavia Street	From Rose Street to Haight Street	50.7	50.4	0.3
Octavia Street	From Page Street to Rose Street	50.8	50.5	0.4
Octavia Street	From Hayes Street to Linden Street (SB)	49.2	49.6	-0.4
Octavia Street	Southbound south of Waller Street	50.0	50.1	0.0
Page Street	From Buchanan Street to Laguna Street	62.3	62.5	-0.1
Plum Street	From Mission Street to South Van Ness Avenue	53.7	54.6	-0.9
Valencia Street	From 15 th Street to 14 th Street	55.6	55.7	-0.1

Mitigation Measures

Implementation of Mitigation Measure M-NOI-4, Noise Analysis for Projects in Excess of Applicable Noise Standards (described previously) would be required.

Significance After Mitigation

Implementation of Mitigation Measure M-NOI-4, Noise Analysis for Projects in Excess of Applicable Noise Standards (described previously), would reduce potential conflicts between existing sensitive receptors and new noise-generating uses developed under the Hub Plan (e.g., noise associated with subsequent development projects) and would ensure that noise from the proposed noise-generating land uses under the Hub Plan would comply with applicable city standards. Therefore, with implementation of Mitigation Measure M-NOI-4, the contribution of the Hub Plan to this potential cumulative impact would not be considerable, and the impact would be *less than significant with mitigation*.

Impact C-NOI-4. Operation of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards. (Less than Significant)

VEHICULAR TRAFFIC NOISE

As shown in **Table 3.C-28**, p. 3.C-84, under the discussion of cumulative traffic noise impacts related to the Hub Plan, the Hub Plan would result in a 0.0 to 0.4 dB increase in (or, in some cases, a decrease in) traffic noise along the segments determined to have potential cumulative traffic noise impacts. Although cumulative vehicular traffic noise impacts in the Hub Plan area were determined to potentially occur, the Hub Plan would not result in a cumulatively considerable contribution to any cumulative vehicular traffic noise impacts. Because the 30 Van Ness Avenue and 98 Franklin Street projects would contribute only a small fraction of the total Hub Plan vehicular traffic volumes by 2040, these projects would also not result in a cumulatively considerable contribution to any cumulative traffic impacts. For this reason, the traffic increases resulting from the individual development projects would not result in a cumulatively considerable contribution to any cumulative vehicular traffic noise impacts. Impacts are *less than significant*.

THE SITING OF NOISE-GENERATING USES

30 Van Ness Avenue and 98 Franklin Street Projects

In general, most operational sources of noise do not generate noise that is perceptible far beyond the edge of a project site. However, it is possible that operational sources of noise for subsequent development projects under the Hub Plan, as well as other cumulative projects in the Hub Plan area, could generate noise in excess of allowable levels or result in a permanent increase in

ambient noise levels. It is also possible that noise-generating uses from subsequent development projects under the Hub Plan and other projects in the Hub Plan area could be located close enough to one another that operational (non-traffic) noise from multiple projects could combine and result in a cumulative noise impact. Therefore, as described under the cumulative impact discussion for the Hub Plan, it is possible that noise from multiple subsequent development projects or sources could combine to cause a cumulative impact. Therefore, cumulative impacts related to operational noise in the Hub Plan area are considered potentially significant.

With regard to the potential for the individual development projects to have a cumulatively considerable contribution to this cumulative impact, as discussed under Impact NOI-5, noise from emergency generators and HVAC equipment for the 30 Van Ness Avenue and 98 Franklin Street projects would be localized, would attenuate rapidly with distance, and would be shielded by solid screens or walls at least as tall as the equipment (which would break the line of sight between the equipment and adjacent uses). Noise levels were determined to be below the allowable levels, as defined by both section 2909(b) and 2909(d) of the noise ordinance. For these reasons, the individual development projects would result in a less-than-considerable contribution to cumulative noise impacts. This impact would be *less than significant*.

3.D AIR QUALITY

This section addresses air quality impacts that could result from implementation of the Hub Plan,¹ the designation of all of the Hub Plan area as a Housing Sustainability District (HSD) and implementation of two individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

Implementation of the Hub Plan and the Hub HSD would result in new planning policies to increase permitted heights and provide additional rezoning to have more consistent land use controls across the area and reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. With the exception of the streetscape and street network improvements and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which are analyzed in this EIR at project-specific levels, the Hub Plan and Hub HSD would not itself result in immediate physical changes to the existing air quality conditions. Subsequent development projects under the Hub Plan would incentivize new development, which could result in existing land uses in the Hub Plan area being replaced over time.

This section discusses the existing air quality conditions in the Hub Plan area and vicinity, presents the regulatory framework for air quality management, and analyzes the potential for implementation of the proposed Hub Plan, the HSD and the two individual projects at 30 Van Ness Avenue and 98 Franklin Street to affect existing air quality conditions, both regionally and locally, due to activities that emit criteria and non-criteria air pollutants. It also analyzes the types and quantities of emissions that would be generated on a temporary basis due to construction activities as well as those generated over the long term due to development in the Hub Plan area, the Hub HSD, and the two individual projects. The analysis determines whether those emissions are significant in relation to applicable air quality standards and identifies feasible mitigation measures for significant adverse impacts. Emissions of greenhouse gases resulting from the proposed project's potential impacts on climate change and the state's goals for greenhouse gas emissions pursuant to Assembly Bill 32 and Senate Bill 32 were addressed in the initial study and determined to be less than significant (see Appendix B).

The study area for regional air quality impacts is the San Francisco Bay Area Air Basin (air basin). The study area for localized air quality impacts is the Hub Plan area as well as parcels within 1,000 meters (3,281 feet) of the Hub Plan area boundary.

The analysis in this section is based on a review of existing air quality conditions in the region and air quality regulations administered by the U.S. Environmental Protection Agency (EPA), the

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

California Air Resources Board (air resources board), and the Bay Area Air Quality Management District (air district). This analysis includes methodologies identified in the 2017 air district *CEQA Air Quality Guidelines* and the health risk assessment methodology published by the Office of Environmental Health Hazard Assessment (OEHHA) in 2015.^{2,3}

The City and County of San Francisco (City) received no comments related to air quality on the notice of preparation (NOP) (Appendix A) issued for the Hub Plan, Hub HSD, and two individual development projects.

ENVIRONMENTAL SETTING

The Hub Plan area is within the San Francisco Bay Area Air Basin, which includes all of San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara, and Napa counties, and the southern and southwestern portions, respectively, of Sonoma and Solano counties. The Bay Area Air Quality Management District is the regional agency responsible for air quality planning in the air basin.

CLIMATE AND METEOROLOGY

The air basin's moderate climate steers storm tracks away from the region for much of the year, although storms generally affect the region from November through April. San Francisco's proximity to the onshore breezes stimulated by the Pacific Ocean provides for generally good air quality in the Hub Plan area and the city as a whole.

Temperatures in the Hub Plan area vicinity average in the mid-50s annually, generally ranging from the low 40s on winter mornings to mid-70s during summer afternoons. Daily and seasonal oscillations of temperature are small because of the moderating effects of the San Francisco Bay. In contrast to the steady temperature regime, rainfall is highly variable and confined almost exclusively to the "rainy" period from November through April. Precipitation may vary widely from year to year as a shift in the annual storm track of a few hundred miles can mean the difference between a wet year and drought conditions.

Atmospheric conditions—such as wind speed, wind direction, and air temperature gradients—interact with the physical features of the landscape to determine the movement and dispersal of air pollutants regionally. The Hub Plan area lies within the Peninsula climatological subregion. Marine air traveling through the Golden Gate is a dominant weather factor affecting dispersal of

² Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, updated May 2017, http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed April 18, 2019.

³ California Environmental Protection Agency, *The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessment*, February 2015, <http://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>, accessed October 12, 2016.

air pollutants within the region. Wind measurements collected on the San Francisco mainland indicate a prevailing wind direction from the west and an average annual wind speed of 10.6 miles per hour.⁴ Increased temperatures create the conditions in which ozone formation can increase.

AMBIENT AIR QUALITY – CRITERIA AIR POLLUTANTS

As required by the 1970 federal Clean Air Act, the EPA initially identified six criteria air pollutants that are pervasive in urban environments and for which state and federal health-based ambient air quality standards have been established. EPA calls these pollutants “criteria air pollutants” because the agency has regulated them by developing specific public-health-based and welfare-based criteria as the basis for setting permissible levels. Ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead are the six criteria air pollutants originally identified by EPA. Since that time, subsets of particulate matter have been identified for which permissible levels have been established. These include particulate matter of 10 microns in diameter or less (PM₁₀) and particulate matter of 2.5 microns in diameter or less (PM_{2.5}). Refer to the Regulatory Framework section for further detail with respect to state and federal air quality standards for specific pollutants and their attainment status within the air basin.

The region’s air quality monitoring network provides information on ambient concentrations of criteria air pollutants at various locations in the San Francisco Bay Area. **Table 3.D-1** presents a five-year summary for the period 2013 to 2017 of the highest annual criteria air pollutant concentrations, collected at the air quality monitoring station operated and maintained by the air district at Sixteenth and Arkansas streets, in San Francisco’s lower Potrero Hill area, which is the closest monitoring station to the Hub Plan area, one mile to the south. **Table 3.D-1** also compares measured pollutant concentrations with the most stringent applicable ambient air quality standards (state or federal). Concentrations shown in bold indicate only a local exceedance of the standard and do not reflect the attainment status for the air basin (see **Table 3.D-2**, p. 3.D-5, for the air basin’s attainment status for each criteria air pollutant). **Table 3.D-1** does not include SO₂ because monitors are not required for the Bay Area as the air basin has never been designated as nonattainment for SO₂.

⁴ Available <http://www.wrcc.dri.edu/htmlfiles/westwinddir.html#CALIFORNIA>, accessed October 11, 2016.

TABLE 3.D-1. SUMMARY OF SAN FRANCISCO AIR QUALITY MONITORING DATA (2013–2017)

Pollutant	Most Stringent Applicable Standard	Number of Days Standards Were Exceeded and Maximum Concentrations Measured ¹				
		2013	2014	2015	2016	2017
Ozone						
Maximum 1-Hour Concentration (ppm)	>0.09 ²	0.069	0.079	0.085	0.070	0.087
Days 1-Hour Standard Exceeded		0	0	0	0	0
Maximum 8-Hour Concentration (ppm)	>0.070 ^{2,3}	0.059	0.069	0.067	0.057	0.054
Days 8-Hour Standard Exceeded		0	0	0	0	0
Carbon Monoxide (CO)						
Maximum 1-Hour Concentration (ppm)	>20 ²	1.8	1.6	1.8	1.7	2.5
Days 1-Hour Standard Exceeded		0	0	0	0	0
Maximum 8-Hour Concentration (ppm)	>9.0 ^{2,3}	1.4	1.2	1.3	1.1	1.4
Days 8-Hour Standard Exceeded		0	0	0	0	0
Respirable Particulate Matter (PM₁₀)						
Maximum 24-Hour Concentration (µg/m ³)	>50 ²	44	36	47	29	77
Days 24-Hour Standard Exceeded ⁴		0	0	0	0	2
Fine Particulate Matter (PM_{2.5})						
Maximum 24-Hour Concentration (µg/m ³)	>35 ³	49	33	35	19.6	49.9
Days 24-Hour Standard Exceeded		2	0	0	0	7
Annual Average (µg/m ³)	>12 ^{2,3}	10.1	7.7	9.6	7.5	9.7
Nitrogen Dioxide (NO₂)						
Maximum 1-Hour Concentration (ppm)	>0.100 ³	0.07	0.08	0.07	0.06	0.07
Days 1-Hour Standard Exceeded		0	0	0	0	0

Source: Air District, Bay Area Air Pollution Summary, 2013–2017

Notes: **Boldface** values are in excess of applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter; > = greater than

¹ Number of days exceeded is for all days in a given year, except for PM₁₀, which has been monitored once every 12 days as of January 2013.

² State standard, not to be exceeded.

³ Federal standard, not to be exceeded.

⁴ Based on a sampling schedule of 1 out of every 12 days, for a total of approximately 30 samples per year.

TABLE 3.D-2. STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS

Pollutant	Averaging Time	State (CAAQS ¹)		Federal (NAAQS ²)	
		Standard	Attainment Status	Standard	Attainment Status
Ozone	1-hour	0.09 ppm	N	NA	See note 3
	8-hour	0.070 ppm	N	0.070 ppm ⁴	N ⁵
Carbon Monoxide (CO)	1-hour	20 ppm	A	35 ppm	A
	8-hour	9 ppm	A	9 ppm	A
Nitrogen Dioxide (NO ₂)	1-hour	0.18 ppm	A	0.100 ppm	A ⁶
	Annual	0.030 ppm	NA	0.053 ppm	A
Sulfur Dioxide (SO ₂)	1-hour	0.25 ppm	A	0.075 ppm	See note 7
	24-hour	0.04 ppm	A	0.14 ppm	See note 7
	Annual	NA	NA	0.03 ppm	See note 7
Particulate Matter (PM ₁₀)	24-hour	50 µg/m ³	N	150 µg/m ³	U
	Annual ⁸	20 µg/m ³	N ⁹	NA	NA
Fine Particulate Matter (PM _{2.5})	24-hour	NA	NA	35 µg/m ³	N
	Annual	12 µg/m ³	N ⁹	12 µg/m ³	U/A
Sulfates	24-hour	25 µg/m ³	A	NA	NA
	30-day calendar quarter	1.5 µg/m ³	A	NA	NA
Lead	Rolling 3-month average	NA	NA	1.5 µg/m ³	A
		NA	NA	0.15	U ¹⁰
Hydrogen Sulfide	1-hour	0.03 ppm	U	NA	NA
Visibility-Reducing Particles	8-hour	See ¹¹	U	NA	NA

Sources: Air District, Standards and Attainment Status, last updated January 5, 2017; EPA National Ambient Air Quality Standards, last updated December 20, 2016.

Notes: A = Attainment; N = Nonattainment; U = Unclassified; NA = Not Applicable, no applicable standard; ppm = parts per million; µg/m³ = micrograms per cubic meter

¹ CAAQS = California ambient air quality standards. CAAQS for ozone, CO (except Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂, PM, and visibility-reducing particles are values that are not to be exceeded. All other state standards shown are values not to be equaled or exceeded.

² NAAQS = national ambient air quality standards. NAAQS, other than ozone and particulates, and those based on annual averages or annual arithmetic means, are not to be exceeded more than once a year. The 8-hour ozone standard is attained when the 3-year average of the fourth highest daily concentration is 0.07 ppm or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than the standard. The 24-hour PM_{2.5} standard is attained when the 3-year average of the 98th percentile is less than the standard.

³ EPA revoked the national 1-hour ozone standard on June 15, 2005.

⁴ This federal 8-hour ozone standard was approved by EPA in October 2015 and became effective on December 28, 2015.

⁵ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour ozone concentration per

TABLE 3.D-2. STATE AND FEDERAL AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS

year, averaged over three years, is equal to or less than 0.070 ppm. EPA made recommendations on attainment designations for California on October 3, 2016.

⁶ To attain this standard, the 3-year average of the 98th percentile of the daily maximum 1-hour average at each monitor within an area must not exceed 0.100 ppm (effective January 22, 2010).

⁷ On June 2, 2010, the EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQS, however, must continue to be used until one year following EPA initial designations of the new 1-hour SO₂ NAAQS. EPA classified the San Francisco Bay Area Air Basin as being in Attainment/Unclassifiable in January 2018 (*Federal Register* Vol. 83, No. 6, pp. 1098-1172).

⁸ State standard = annual geometric mean; national standard = annual arithmetic mean.

⁹ In June 2002, the California Air Resources Board established new annual standards for PM_{2.5} and PM₁₀.

¹⁰ National lead standard, rolling 3-month average: final rule signed October 15, 2008. Final designations effective December 31, 2011.

¹¹ Statewide visibility-reducing particle standard (except Lake Tahoe Air Basin): Particles in sufficient amount to produce an extinction coefficient of 0.23 per kilometer when the relative humidity is less than 70 percent. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze and is equivalent to a 10-mile nominal visual range.

OZONE

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG, also sometimes referred to as volatile organic compounds or VOC by some regulating agencies) and nitrogen oxides (NO_x). The main sources of ROG and NO_x, often referred to as ozone precursors, are combustion processes (including motor vehicle engines) and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the single largest source of ozone precursors. Ozone is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with ozone production through the photochemical reaction process. Ozone causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases, such as asthma, bronchitis, and emphysema.

According to published data, and as shown in **Table 3.D-1**, p. 3.D-4, the most stringent applicable standards for ozone (state 1-hour standard of 0.09 parts per million [ppm] and the federal 8-hour standard of 0.070 ppm) were not exceeded in San Francisco between 2013 and 2017. In 2015, the EPA strengthened the 8-hour ozone standard to 0.070 ppm, and the new standard became effective December 28, 2015.

CARBON MONOXIDE

CO is an odorless, colorless gas usually formed as a result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles; the highest emissions occur during low travel speeds, stop-and-go driving, cold starts, and hard acceleration. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea, dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Very high levels of CO can be fatal. As shown in **Table 3.D-1**,

p. 3.D-4, the more stringent state CO standards were not exceeded in San Francisco between 2013 and 2017. Measurements of CO indicate hourly maximums ranging between 8 and 10 percent of the more stringent state standard, and maximum 8-hour CO levels that are approximately 12 to 16 percent of the allowable 8-hour standard.

PARTICULATE MATTER (PM₁₀ AND PM_{2.5})

Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from man-made and natural sources. Particulate matter regulated by the state and federal Clean Air Acts is measured in two size ranges: PM₁₀ for particles less than 10 microns in diameter, and PM_{2.5} for particles less than 2.5 microns in diameter. In the Bay Area, motor vehicles generate about one-half of the air basin's particulates, through tailpipe emissions as well as brake pad and tire wear. Wood burning in fireplaces and stoves, industrial facilities, and ground-disturbing activities such as construction are other sources of such fine particulates. These fine particulates are small enough to be inhaled into the deepest parts of the human lung and can cause adverse health effects. According to the air resources board, studies in the United States and elsewhere "have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks," and studies of children's health in California have demonstrated that particle pollution "may significantly reduce lung function growth in children." The air resources board also reports that statewide attainment of particulate matter standards could prevent thousands of premature deaths, lower hospital admissions for cardiovascular and respiratory disease and asthma-related emergency room visits, and avoid hundreds of thousands of episodes of respiratory illness in California.

Among the criteria pollutants that are regulated, particulates appear to represent a serious ongoing health hazard. As long ago as 1999, the air district was reporting, in its CEQA Air Quality Guidelines, that studies had shown that elevated particulate levels contribute to the death of approximately 200 to 500 people per year in the Bay Area. High levels of particulate matter can exacerbate chronic respiratory ailments, such as bronchitis and asthma, and have been associated with increased emergency room visits and hospital admissions.

As shown in **Table 3.D-1**, p. 3.D-4, the state 24-hour PM₁₀ standard was exceeded on two monitored occasions between 2013 and 2017 in San Francisco, both in 2017 during the wildfire period in the counties to the north of San Francisco (it is likely that once data is available for 2018, it will also show an exceedance of the state 24-hour PM₁₀ standard due to wildfire smoke from the Camp fire during November 2018). It is estimated that the state 24-hour PM₁₀ standard of 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) was exceeded on up to 24 days per year between 2013 and 2017. The federal 24-hour PM_{2.5} standard was exceeded up to nine times between 2013 and 2017. The federal and state annual average PM_{2.5} standards were not exceeded between 2013 and 2017.

PM_{2.5} is of particular concern because epidemiologic studies have demonstrated that people who live near freeways and high-traffic roadways have poorer health outcomes, including increased

asthma symptoms and respiratory infections, and decreased pulmonary function and lung development in children.⁵

NITROGEN DIOXIDE

NO₂ is a reddish-brown gas that is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO₂. Aside from its contribution to ozone formation, NO₂ can increase the risk of acute and chronic respiratory disease and reduce visibility. NO₂ may be visible as a coloring component of the air on high-pollution days, especially in conjunction with high ozone levels. The current state 1-hour standard for NO₂ (0.18 ppm) is being met in San Francisco. In 2010, the EPA implemented a new 1-hour NO₂ standard (0.10 ppm), which is presented in **Table 3.D-2** p. 3.D-5. Currently, the air resources board is recommending that the San Francisco Bay Area Air Basin be designated as an attainment area for the new standard.⁶ As shown in **Table 3.D-1**, p. 3.D-4, this new federal standard was not exceeded at the San Francisco station between 2013 and 2017.

The EPA has also established requirements for a new monitoring network to measure NO₂ concentrations near major roadways in urban areas with a population of 500,000 or more. Sixteen new near-roadway monitoring sites are required in California, three of which are in the Bay Area. These monitors are located in Berkeley, Oakland, and San Jose. The Oakland station commenced operation in February 2014, the San Jose station in March 2015, and the Berkeley station in July 2016. The new monitoring data may result in a need to change area designations in the future. The air resources board will revise the area designation recommendations, as appropriate, once the new monitoring data become available.

SULFUR DIOXIDE

SO₂ is a colorless acidic gas with a strong odor. It is produced by the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO₂ has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of

⁵ San Francisco Department of Public Health, Assessment and Mitigation of Air Pollutant Health Effect from Intra-urban Roadways: Guidance for Land Use Planning and Environmental Review, May 2008, p. 7. Available at https://www.gsweventcenter.com/Draft_SEIR_References/2008_0501_SFDPH.pdf.

⁶ California Air Resources Board, Recommended Area Designations for the 2010 Nitrogen Dioxide Standards, Technical Support Document, January 2011, https://www.arb.ca.gov/desig/NO2_Enclosure_1.pdf, accessed August 6, 2018.

acute and chronic respiratory disease.^{7, 8} Sulfur dioxide monitoring was terminated at the San Francisco station in 2009 because the state standard for SO₂ is being met in the Bay Area, and pollutant trends suggest that the air basin will continue to meet this standard for the foreseeable future.

In 2010, the EPA implemented a new one-hour SO₂ standard presented in **Table 3.D-2**, p. 3.D-5. The EPA has initially designated the air basin as an attainment area for SO₂. Similar to the new federal standard for NO₂, the EPA has established requirements for a new monitoring network to measure SO₂ concentrations beginning in January 2013.⁹ No additional SO₂ monitors are required for the Bay Area because the air basin has never been designated as nonattainment for SO₂ and no State Implementation Plan (SIP) or maintenance plans have been prepared for SO₂.¹⁰

LEAD

Leaded gasoline (phased out in the United States beginning in 1973), paint (on older houses, cars), smelters (metal refineries), and manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, which put children at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated.

Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California. On October 15, 2008, EPA strengthened the national ambient air quality standard for lead by lowering it from 1.5 µg/m³ to 0.15 µg/m³. EPA revised the monitoring requirements for lead in December 2010. These requirements focus on airports and large urban areas resulting in an increase in 76 monitors nationally.¹¹ Lead monitoring stations in the Bay Area are located at Palo Alto Airport, Reid-Hillview Airport (San Jose) and San Carlos Airport. Non-airport locations for lead monitoring are Redwood City and San Jose.

⁷ Bay Area Air Quality Management District, *CEQA Guidelines*, p. B-2.

⁸ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, updated May 2017, http://www.baaqmd.gov/~/media/Files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed April 18, 2019.

⁹ EPA, Fact Sheet: Revisions to the Primary National Ambient Air Quality Standard, Monitoring Network, and Data Reporting Requirements for Sulfur Dioxide, <https://www.epa.gov/so2-pollution/fact-sheets-and-additional-information-regarding-primary-national-ambient-air-quality>.

¹⁰ Bay Area Air Quality Management District, *2012 Air Monitoring Network Plan*, July 2013. Available at http://www.baaqmd.gov/~/media/Files/Technical%20Services/2012_Network_Plan.ashx; p. 30.

¹¹ EPA, Fact Sheet Revisions to Lead Ambient Air Quality Monitoring Requirements, https://www.epa.gov/sites/production/files/2016-03/documents/leadmonitoring_finalrule_factsheet.pdf.

AIR QUALITY INDEX

EPA developed the Air Quality Index (AQI) to make the public health impacts of air pollution concentrations easily understandable. The AQI, much like an air quality “thermometer,” translates daily air pollution concentrations into a number on a scale between 0 and 500. The numbers are divided into six color-coded ranges, with numbers 0–300 as outlined below:

- Green (0–50) indicates “good” air quality. No health impacts are expected when air quality is in the green range.
- Yellow (51–100) indicates air quality is “moderate.” Unusually sensitive people should consider limited prolonged outdoor exertion.
- Orange (101–150) indicates air quality is “unhealthy for sensitive groups.” Active children and adults, and people with respiratory disease, such as asthma, should limit outdoor exertion.
- Red (151–200) indicates air quality is “unhealthy.” Active children and adults, and people with respiratory disease, such as asthma should avoid prolonged outdoor exertion; everyone else, especially children, should limit prolonged outdoor exertion.
- Purple (201–300) indicates air quality is “very unhealthy.” Active children and adults, and people with respiratory disease, such as asthma, should avoid prolonged outdoor exertion; everyone else, especially children, should limit outdoor exertion.

The AQI numbers refer to specific amounts of pollution in the air, and are based on the federal air quality standards for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, PM₁₀ and PM_{2.5}. In most cases, the federal standard for these air pollutants corresponds to the number 100 on the AQI chart. If the concentration of any of these pollutants rises above its respective standard, it can be unhealthy for the public. In determining the air quality forecast, local air districts, including the air district, use the anticipated concentration measurements for each of the major pollutants, convert them into AQI numbers, and determine the highest AQI for each zone in a district.

Readings below 100 on the AQI scale would not typically affect the health of the general public (although readings in the moderate range of 50 to 100 may affect unusually sensitive people). Levels above 300 rarely occur in the United States, and readings above 200 have not occurred in the Bay Area in decades, with the exception of the October 2017 and November 2018 wildfires north of San Francisco.¹² As a result, the Air Quality Index in several neighboring counties reached the “very unhealthy” and “hazardous” designations, ranging from values of 201 to above 350. During those periods, the air district issued “Spare the Air” alerts and recommended that individuals stay inside with windows closed and refrain from significant outdoor activity.

¹² Bay Area Air Quality Management District, <http://www.baaqmd.gov/about-air-quality/current-air-quality>, accessed March 4, 2019.

AQI statistics over recent years indicate that air quality in the Bay Area is predominantly in the “Good” or “Moderate” categories and healthy on most days for most people. Historical air district data indicate that the San Francisco Bay Area Air Basin experienced air quality in the red level (unhealthy) on seven days between 2013 and 2017. As shown in **Table 3.D-3**, the air basin had a total of 14 red or orange-level (unhealthy or unhealthy for sensitive groups) days in 2013, 10 days in 2014, 12 days in 2015, 12 days in 2016, and 7 days in 2017 (statistics from 2018 are not included in this dataset).

TABLE 3.D-3. AIR QUALITY INDEX STATISTICS FOR THE SAN FRANCISCO BAY AREA AIR BASIN

Air Quality Index Levels	Number of Days by Year				
	2013	2014	2015	2016	2017
Unhealthy for Sensitive Groups (Orange)	13	9	12	11	3
Unhealthy (Red)	1	1	0	1	4

Source: Bay Area Air Quality Management District, 2018.

TOXIC AIR CONTAMINANTS AND LOCAL HEALTH RISKS AND HAZARDS

In addition to criteria air pollutants, plans and individual projects may directly or indirectly emit toxic air contaminants (TACs), which collectively refers to a diverse group of air pollutants that are capable of causing chronic (i.e., long-duration) and acute (i.e., severe but short term) adverse effects on human health, including carcinogenic effects. Human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, TACs do not have ambient air quality standards; instead, TACs are regulated by the air district using a risk-based approach to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis in which human health exposure to toxic substances is estimated and considered, together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks.¹³

Exposure assessment guidance published by the air district in January 2016 adopts the assumption that residences would be exposed to air pollution 24 hours per day, 350 days per

¹³ In general, a health risk assessment is required if the air district concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant of the project that would emit TACs is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

year, for 30 years.¹⁴ Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

Exposures to PM_{2.5} are strongly associated with mortality, respiratory diseases, and reductions in lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.¹⁵ In addition to PM_{2.5}, diesel particulate matter (DPM) is also of concern. The air resources board identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.¹⁶ The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

SAN FRANCISCO MODELING OF AIR POLLUTION EXPOSURE ZONES

In an effort to identify areas of San Francisco that are most adversely affected by sources of TACs, San Francisco partnered with the air district to inventory and assess air pollution and exposure from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed “Air Pollutant Exposure Zones” (APEZs), were identified, based on the following health-protective criteria: (1) cancer risk greater than 100 per 1 million from the contribution of emissions from all modeled sources or (2) cumulative PM_{2.5} concentrations greater than 10 µg/m³. The APEZ is expanded in certain geographic health vulnerable¹⁷ zip codes (including portions of the Hub Plan area) to be more protective, with the areas included in the APEZ based on a standard that is 10 percent more stringent than elsewhere in the city (i.e., areas where the cancer risk exceeds 90 in 1 million or the PM_{2.5} concentration exceeds 9 µg/m³). The APEZ also includes all parcels within 500 feet of a freeway. **Figure 3.D-1** shows the location of the APEZ within and nearby the Hub Plan area. The APEZ is based on modeling that was prepared using a 20-meter by 20-meter receptor grid covering the entire city. The majority of the Hub Plan area is located within the APEZ, primarily because of high traffic volumes on Hub Plan area streets. There are also a number of individual sources of TACs in the Hub Plan area, including diesel generators, dry cleaners, auto body repair shops, and other light industrial activities. The APEZ criteria are further described below.

¹⁴ Bay Area Air Quality Management District, *Air Toxics NSR Program Health Risk Assessment (HRA) Guidelines*, January 2016. Available online at http://www.baaqmd.gov/~media/files/planning-and-research/rules-and-regs/workshops/2016/reg-2-5/hra-guidelines_clean_jan_2016-pdf.pdf?la=en. Accessed April 10, 2019.

¹⁵ SFDPH, *Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review*, May 2008.

¹⁶ California Air Resources Board, Fact Sheet, “The Toxic Air Contaminant Identification Process: Toxic Air Contaminant Emissions from Diesel-fueled Engines,” October 1998.

¹⁷ Health vulnerable areas were identified as those Bay Area zip codes in the worst quintile of Bay Area Health Vulnerability Scores. San Francisco Departments of Public Health and Planning. Memorandum Re: 2014 Air Pollutant Exposure Zone Map, April 9, 2014.



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.D-1
Air Pollutant Exposure Zone

FINE PARTICULATE MATTER

In April 2011, the EPA published *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*. In this document, EPA staff conclude that the then current federal annual PM_{2.5} standard of 15 µg/m³ should be revised to a level within the range of 13 to 11 µg/m³, with evidence strongly supporting a standard within the range of 12 to 11 µg/m³. APEZs for San Francisco are based on the health-protective PM_{2.5} standard of 11 µg/m³, as supported by the EPA's *Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards*, although lowered to 10 µg/m³ to account for uncertainty in accurately predicting air pollutant concentrations using emissions modeling programs.

CANCER RISK

The greater than 100 per 1 million persons exposed (100 cancer risk) criterion for defining the Air Pollution Exposure Zone is based on EPA guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level.¹⁸ As described by the air district, the EPA considers a cancer risk of 100 per million or less to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP) rulemaking,¹⁹ EPA states that it “... strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible to an individual lifetime risk level no higher than approximately one in 1 million and (2) limiting to no higher than approximately one in ten thousand [100 in 1 million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.” The 100-per-1-million cancer risk is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on the air district's regional modeling.²⁰

In addition to monitoring criteria pollutants, both the air district and the air resources board operate TAC monitoring networks in the San Francisco Bay Area Air Basin. These stations measure 10 to 15 TACs, depending on the specific station. The TACs selected for monitoring are those that have traditionally been found in the highest concentrations in ambient air and therefore tend to produce the most substantial risk. The nearest air district ambient TAC monitoring station to the Hub Plan area is the station at Sixteenth and Arkansas Streets in San Francisco. **Table 3.D-4** shows ambient concentrations of carcinogenic TACs measured at the Arkansas Street station as well as the estimated cancer risks from a lifetime exposure (30 years) to these substances.

¹⁸ Bay Area Air Quality Management District, Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance, October 2009, p. 67.

¹⁹ 54 *Federal Register* 38044, September 14, 1989.

²⁰ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 67.

TABLE 3.D-4. ANNUAL AVERAGE AMBIENT CONCENTRATIONS OF CARCINOGENIC TOXIC AIR CONTAMINANTS

Substance	Concentration¹	Cancer Risk per Million²
Gaseous TACs (ppb)		
Acetaldehyde	0.69	10
Benzene	0.216	56
1,3-Butadiene	0.036	39
Carbon Tetrachloride	*	*
Chloroform	0.028	2
Para-Dichlorobenzene	*	*
cis-1,3-Dichloropropene	0.05	10
trans-1,3-Dichloropropene	0.05	10
Ethyl Benzene	0.11	3
Ethylene Dibromide	*	*
Ethylene Dichloride	*	*
Formaldehyde	1.64	35
Methyl Tertiary-Butyl Ether (MTBE)	*	*
Methylene Chloride	0.114	1
Perchloroethylene	0.009	1
Trichloroethylene	0.010	0.3
Polycyclic Aromatic Hydrocarbons (ng/m³)		
Benzo(a)pyrene	*	*
Benzo(b)fluoranthene	*	*
Benzo(k)fluoranthene	*	*
Dibenz(a,h)anthracene	*	*
Indeno(1,2,3-cd)pyrene	*	*
Particulate TACs (ng/m³)		
Arsenic	0.92	9
Beryllium	0.150	1
Cadmium	0.70	9
Chromium (hexavalent)	*	*
Lead	*	*
Nickel	3.2	2
Total Risk for All TACs		188

Source: California Air Resources Board, Annual Toxics Summaries by Monitoring Site (2017), <https://www.arb.ca.gov/adam/toxics/sitesubstance.html>.

Notes: TACs = toxic air contaminants; ppb = part per billion; ng/m³ = nanograms per cubic meter; *= indicates that insufficient or no data were available to determine the value

¹ Measured at air district monitoring station at 10 Arkansas Street in San Francisco.

² The potential cancer risk estimates reflect the most recent risk assessment methodology finalized by the Office of Environmental Health Hazard Assessment on March 6, 2015. Information on the agency's new risk assessment methodology can be found at <https://oehha.ca.gov/air/crnrr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>.

When TAC measurements at this station are compared to ambient concentrations of various TACs for the Bay Area as a whole, the cancer risks associated with mean TAC concentrations in San Francisco are similar to those for the region. Therefore, the estimated average lifetime cancer risk resulting from exposure to TAC concentrations monitored at the San Francisco station does not appear to be any greater than that for the Bay Area as a region.

ROADWAY-RELATED POLLUTANTS

Motor vehicles are responsible for a large share of air pollution, especially in California. Vehicle tailpipe emissions, which contain diverse particles and gases, contribute particulate matter by generating road dust through tire wear. Epidemiologic studies demonstrated that people living in proximity to freeways or busy roadways have poorer health outcomes, including increased asthma symptoms and respiratory infections and decreased pulmonary function and lung development in children. Air pollution monitoring conducted in conjunction with epidemiologic studies has confirmed that roadway-related health effects vary with modeled exposure to particulate matter and nitrogen dioxide. In traffic-related studies, the additional non-cancer health risk attributable to roadway proximity was seen within 1,000 feet of the roadway and was strongest within 300 feet.²¹ As a result, the air resources board recommends that new sensitive land uses not be within 500 feet of a freeway or urban roads carrying 100,000 vehicles per day.

DIESEL PARTICULATE MATTER

As discussed above, the air resources board identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources, such as trucks and buses, are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways. The air resources board estimated average Bay Area cancer risk from exposure to diesel particulate, based on a population-weighted average ambient diesel particulate concentration, at about 480 in 1 million as of 2000, which is much higher than the risk associated with any other toxic air pollutant routinely measured in the region. The statewide risk from DPM, as determined by air resources board, declined from 750 in 1 million in 1990 to 570 in 1 million in 1995; by 2000, the air board estimated the average statewide cancer risk from DPM at 540 in 1 million.^{22, 23}

²¹ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005 (hereinafter "Air Quality and Land Use Handbook"). Available at <https://ww3.arb.ca.gov/ch/handbook.pdf>.

²² California Air Resources Board, *California Almanac of Emissions and Air Quality – 2009 Edition*, Table 5-44 and Figure 5-12, <http://www.arb.ca.gov/aqd/almanac/almanac09/chap509.htm>.

²³ This calculated cancer risk value from ambient air exposure in the Bay Area can be compared against the lifetime probability of being diagnosed with cancer in the United States, from all causes, which is more than 40 percent (based on a sampling of 17 regions nationwide), or greater than 400,000 in 1 million, according to the American Cancer Society. (American Cancer Society, "Lifetime Probability of Developing or Dying from Cancer," last revised July 13, 2009, http://www.cancer.org/docroot/CRI/content/CRI_2_6x_Lifetime_Probability_of_Developing_or_Dying_From_Cancer.asp.)

In 2000, the air resources board approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. Subsequent air resources board regulations apply to new trucks and diesel fuel. With new controls and fuel requirements, 60 trucks built in 2007 would have the same particulate exhaust emissions as one truck built in 1988.²⁴ The regulation is anticipated to result in an 80 percent decrease in statewide diesel health risk in 2020 as compared with the diesel risk in 2000. Despite notable emission reductions, the air resources board recommends that proximity to sources of DPM emissions be considered in the siting of new sensitive land uses. The air resources board notes that these recommendations are advisory and should not be interpreted as defined “buffer zones,” and that local agencies must balance other considerations, including transportation needs, the benefits of urban infill, community economic development priorities, and other quality of life issues. With careful evaluation of exposure, health risks, and affirmative steps to reduce risk where necessary, the air resources board’s position is that infill development, mixed use, higher density, transit-oriented development, and other concepts that benefit regional air quality can be compatible with protecting the health of individuals at the neighborhood level.²⁵ Also see *San Francisco Health Code* article 38 discussed in the Regulatory Framework below.

SENSITIVE RECEPTORS

Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Population subgroups sensitive to the health effects of air pollutants include the elderly and the young, population subgroups with higher rates of respiratory disease such as asthma and chronic obstructive pulmonary disease, and populations with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases such as asthma and chronic obstructive pulmonary disease. The factors responsible for variation in exposure are also often similar to factors associated with greater susceptibility to air quality health effects. For example, lower income residents may be more likely to live in substandard housing and be more likely to live near industrial or roadway sources of air pollution.

The air district defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples include schools, hospitals and residential areas. Land uses such as schools, children’s day care centers, hospitals, and nursing and convalescent homes are considered to be sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Residential areas are considered more sensitive to air quality conditions compared to commercial and industrial areas

²⁴ Pollution Engineering, *New Clean Diesel Fuel Rules Start*, July 2006, http://docs.ppsmixeduse.com/ppp/DEIR_References/2006_0701_poll_engineering.pdf.

²⁵ California Air Resources Board, *Air Quality and Land Use Handbook: A Community Health Perspective*, April 2005, <http://www.arb.ca.gov/ch/handbook.pdf>.

because people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality conditions.

Land uses within the Hub Plan area are described in the Land Use and Planning section of the Initial Study (Appendix B to the EIR). As discussed in that section, the Hub Plan area is developed and highly urbanized, consisting of a wide variety of land uses. The following general land uses exist in the Hub Plan area: neighborhood-serving retail, non-residential mixed-use, residential, residential mixed-use, cultural/institutional/educational, office, and open space. Licensed child care centers in the Hub Plan area include Marin Day School and Bright Horizons at 1390 Market Street and Stevenson Child Care Center at 1320 Stevenson Street.

EXISTING STATIONARY SOURCES OF AIR POLLUTION

The air district's inventory of permitted stationary sources of emissions indicates that there are dozens of permitted stationary emission sources present within or near the Hub Plan area. These permitted stationary sources are primarily standby generators, dry cleaners, and other facilities such as auto body shops. These sources are included in the citywide modeling used to identify the APEZ.

MAJOR ROADWAYS CONTRIBUTING TO AIR POLLUTION

The air district's guidance indicates that roadways with vehicle volumes exceeding 10,000 average annual daily traffic (AADT) may impact sensitive receptors if within 1,000 feet of any receptor. This traffic contributes to elevated concentrations of PM_{2.5}, DPM, and other contaminants emitted from motor vehicles near the street level. A review of average daily roadway volumes from the San Francisco County Transportation Authority traffic model indicates that roadways with more than 10,000 AADT in the Hub Plan area and vicinity include I-80, Market Street, Mission Street, Howard Street, Folsom Street, and Van Ness/South Van Ness Avenue. This concentration of high-volume roadways within and proximate to the Hub Plan area is the primary reason that the majority of the Hub Plan area is identified as being within the APEZ.

ODORS

Sources that typically generate odors include wastewater treatment and pumping facilities; landfills, transfer stations, and composting facilities; petroleum refineries, asphalt batch plants, chemical (including fiberglass) manufacturing, and metal smelters; painting and coating operations; rendering plants; coffee roasters and food processing facilities; and animal feed lots and dairies. With the exception of auto body shops with spray booths, none of these uses exists in or near the Hub Plan area.

REGULATORY FRAMEWORK

FEDERAL REGULATIONS

The 1970 Clean Air Act (most recently amended in 1990) requires that regional planning and air pollution control agencies prepare a regional air quality plan to outline the measures by which both stationary and mobile sources of pollutants will be controlled in order to achieve all standards by the deadlines specified in the act. These ambient air quality standards are intended to protect the public health and welfare, and they specify the concentration of pollutants (with an adequate margin of safety) to which the public can be exposed without adverse health effects. They are designed to protect those segments of the public most susceptible to respiratory distress, including asthmatics, the very young, the elderly, people weak from other illness or disease, or persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollution levels that are somewhat above ambient air quality standards before adverse health effects are observed.

The current attainment status for the air basin, with respect to federal standards, is summarized in **Table 3.D-2**, p. 3.D-5. In general, the air basin experiences low concentrations of most pollutants when compared to federal standards, except for PM₁₀, and PM_{2.5}, for which standards are exceeded periodically (see **Table 3.D-2**, p. 3.D-5).

In June 2004, the air basin was designated as a marginal nonattainment area for the national eight-hour ozone standard.²⁶ EPA lowered the national eight-hour ozone standard from 0.80 to 0.75 parts per million (ppm) effective May 27, 2008. In April 2012, EPA designated the Bay Area as a marginal nonattainment²⁷ region for the 0.75 ppm ozone standard established in 2008.²⁸ The air basin is in attainment for other criteria pollutants, with the exception of the 24-hour standards for PM₁₀ and PM_{2.5}, for which the air basin is designated as “Unclassified” and nonattainment, respectively. “Unclassified” is defined by the Clean Air Act as any area that cannot be classified, on the basis of available information, as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant. The air basin is designated as an attainment area with respect to the federal annual average PM_{2.5} standard.

STATE REGULATIONS

Although the federal Clean Air Act established national ambient air quality standards, individual states retained the option to adopt more stringent standards and to include other pollution

²⁶ See <https://archive.epa.gov/ozonedesignations/web/html/timeline.html>.

²⁷ “Marginal nonattainment area” refers to those areas where the fourth highest reading over any 24-hour period in the past 3 years exceeds the 8-hour national ambient air quality standard for ozone at concentrations of between 0.076 and 0.086 ppm.

²⁸ EPA, 2008 Ground-level Ozone Standards — Region 9 Final Designations, April 2012 <https://archive.epa.gov/ozonedesignations/web/html/region9f.html>.

sources. California had already established its own air quality standards when federal standards were established, and because of the unique meteorological problems in California, there are many differences between the state and national ambient air quality standards, as shown in **Table 3.D-2**, p. 3.D-5. California ambient standards tend to be at least as protective as national ambient standards and are often more stringent.

In 1988, California passed the California Clean Air Act (California Health and Safety Code sections 39600 et seq.), which, like its federal counterpart, called for the designation of areas as attainment or nonattainment, but based on state ambient air quality standards rather than the federal standards. As indicated in **Table 3.D-2**, p. 3.D-5, the air basin is designated as “nonattainment” for state ozone, PM₁₀, and PM_{2.5} standards. The air basin is designated as “attainment” or “unclassified” for other pollutants.

TOXIC AIR CONTAMINANTS

In 2005, the air board approved a regulatory measure to reduce emissions of toxic and criteria pollutants by limiting the idling of new heavy-duty diesel vehicles. The regulations generally limit idling of commercial motor vehicles (including buses and trucks) within 100 feet of a school or residential area for more than five consecutive minutes or periods aggregating more than five minutes in any one hour. Buses or vehicles also must turn off their engines upon stopping at a school and must not turn on their engines more than 30 seconds before beginning to depart from a school. Also, Senate Bill 352 was adopted in 2003 to prevent public schools from being located within 500 feet of a freeway or busy traffic corridor (Education Code section 17213; Public Resources Code section 21151.8).

The air board has also adopted rules for new diesel trucks and for off-road diesel equipment. Along with rules adopted by the EPA, these regulations have resulted in substantially more stringent emissions standards for new diesel trucks and new off-road diesel equipment, such as construction vehicles. Effective January 2011, both EPA and the air board adopted so-called interim Tier 4 standards for new equipment with diesel engines of 175 horsepower or greater. The interim Tier 4 emissions standards for particulate matter are about 85 percent more restrictive than previous emissions standards (Tier 2 or Tier 3, depending on the size of the engine)²⁹ for these larger off-road engines. As a result, use of engines that meet the interim Tier 4 standards would reduce diesel exhaust emissions by approximately 85 percent, compared to new engines produced under the previous standards. Tier 2 or Tier 3 engines (for larger equipment, those manufactured since 2006) can achieve generally the same reduction through retrofitting by installation of a diesel particulate filter (an air board–certified Level 3 Verified Diesel Emissions Control System). Beginning in 2014, air board regulations require off-road equipment fleets to

²⁹ For most construction equipment other than that with extremely powerful engines (greater than 750 horsepower), Tier 2 and Tier 3 emissions standards are the same with respect to particulate matter. Therefore, cancer risk from diesel particulate matter—a subset of all particulate matter—is essentially the same for Tier 2 and Tier 3 engines.

begin gradual replacement of older engines with newer, cleaner engines, the installation of exhaust filters on remaining older engines, or some combination of the two to achieve fleet-wide emissions reductions. Because only a certain percentage of each fleet's engines must be replaced or retrofitted on an annual or periodic basis to achieve the required emissions reductions, and because fleet turnover of heavy-duty off-road equipment takes many years, the full effect of the regulations on emissions reduction is not anticipated to be realized for some 20 years.

Regarding equipment already in use, the air board adopted rules for in-use off-road diesel vehicles—including construction equipment—in 2007. Those rules also limit idling to five minutes, require a written idling policy for larger vehicle fleets, and require that fleet operators provide information on their engines to the air board and label vehicles with an air board-issued vehicle identification number. The off-road rules require the retrofit or replacement of diesel engines in existing equipment. This “repowering” was originally to be required beginning in 2010 (for the largest fleets). However, in 2010, the air board delayed the start of repowering to 2014 for large fleets, 2017 for medium-sized fleets, and 2019 for small fleets.³⁰ The air board stated that the delayed implementation was justified because the recession had dramatically reduced emissions, and because the board staff found that the data on which the original rule was based had overestimated emissions. According to the air board, under the revised rules, DPM emissions from off-road equipment will decrease by more than 40 percent from 2010 levels by the year 2020, and by 2030, they will decrease by more than 75 percent.³¹

REGIONAL AND LOCAL REGULATIONS

BAY AREA AIR QUALITY PLANNING

Air quality plans developed to meet federal requirements are referred to as State Implementation Plans. The federal and state Clean Air Acts require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM₁₀ standard).

The *Bay Area Clean Air Plan: Spare the Air, Cool the Climate* was adopted on April 19, 2017, by the Bay Area Air Quality Management District in cooperation with the Metropolitan Transportation Commission (MTC), the Bay Conservation and Development Commission (BCDC), and the Association of Bay Area Governments (ABAG), to provide a regional strategy to improve Bay

³⁰ Fleet size is based on total horsepower (hp): large fleets are those with more than 5,000 hp, medium fleets have 2,501 to 5,000 hp, and small fleets are those with less than 2,500 hp.

³¹ California Air Resources Board, “Staff Report: Initial Statement of Reasons for Proposed Rulemaking: Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements,” October 2010, p. 44, <http://ww3.arb.ca.gov/regact/2010/offroadlsi10/offroadisor.pdf>

Area air quality and meet public health goals.³² The control strategy described in the 2017 Clean Air Plan includes a wide range of control measures designed to reduce emissions and lower ambient concentrations of harmful pollutants, safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, and reduce GHG emissions to protect the climate.

The 2017 Clean Air Plan addresses four categories of pollutants: ground-level ozone and its key precursors, ROG and NO_x; PM, primarily PM_{2.5}, and precursors to secondary PM_{2.5}; air toxics; and GHGs. The control measures are categorized based on the economic sector framework including stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, and water measures.

The air district is the regional agency with jurisdiction over the nine-county region located in the air basin. ABAG, MTC, county transportation agencies, cities and counties, and various non-governmental organizations also participate in the efforts to improve air quality through a variety of programs. These programs include the adoption of regulations and policies, as well as implementation of extensive education and public outreach programs. The air district is responsible for attaining and/or maintaining air quality in the region within federal and state air quality standards. Specifically, the air district has the responsibility to monitor ambient air pollutant levels throughout the region and to develop and implement strategies to attain the applicable federal and state standards. The air district has permit authority over most types of stationary emission sources and can require stationary sources to obtain permits, impose emission limits, set fuel or material specifications, or establish operational limits to reduce air pollutant emissions. The air district also regulates new or expanding stationary sources of toxic air contaminants and requires air toxic control measures (ATCM) for many sources emitting TACs.

San Francisco Construction Dust Control Ordinance

San Francisco Health Code article 22B and San Francisco Building Code section 106.A.3.2.6 collectively constitute the Construction Dust Control Ordinance (adopted in July 2008). The ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from the Department of Building Inspection (DBI). For projects over one-half acre and within 1,000 feet of sensitive receptor(s) (e.g., residences and group living quarters, schools, child care centers, and hospitals and other health-care facilities), and other projects as deemed necessary by the Director of Public Health, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan, with a goal of

³² Bay Area Air Quality Management District, 2017 Bay Area Clean Air Plan: Spare the Air, Cool the Climate. A Blueprint for Clean Air and Climate Protection in the Bay Area, April 19, 2017, http://www.baaqmd.gov/~1/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en, accessed May 25, 2018

minimizing visible dust, for approval by the San Francisco Department of Public Health (DPH) prior to issuance of a building permit by DBI. Such larger projects must also identify a compliance monitor and that person must be available at all times during construction activities.

Building permits will not be issued without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement. The Construction Dust Control Ordinance requires project sponsors and contractors responsible for construction activities to control construction dust on the site or implement other practices that result in equivalent dust control that are acceptable to the Director of Public Health.

Dust suppression activities may include watering of all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water must be used if required by article 21, sections 1100 et seq., of the San Francisco Public Works Code.

Pursuant to Health Code article 22B, section 1247, all departments, boards, commissions, and agencies of the City and County of San Francisco that authorize construction or improvements on land under their jurisdiction under circumstances where no building, excavation, grading, foundation or other permits are required to be obtained under the building code shall adopt rules and regulations to ensure that the same dust control requirements that are set forth in this article are followed.

Health Code Article 38

San Francisco adopted article 38 of the San Francisco Health Code in 2008, and amended it in 2014, to protect new sensitive uses from existing sources of air pollution by requiring enhanced ventilation and filtration systems in certain areas of the city. The 2014 amendments make the health code and building code consistent with the results of the air quality modeling undertaken to identify the City's APEZ. As revised in 2014, article 38 applies to all development that includes "sensitive uses," as defined in the health code, including all residential units; adult, child and infant care centers; schools; and nursing homes. The revised article 38 considers all known existing sources of TACs and PM_{2.5} at the time the modeling was conducted, and requires "enhanced ventilation," including filtration of outdoor air, for all such projects located in the APEZ. The filtration requirement of article 38 specifies Minimum Efficiency Reporting Value (MERV) 13 or equivalent, based on American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Standard 52.2, and requires DPH to confer with other City departments and report to the San Francisco Board of Supervisors concerning technologies it has identified or evaluated that may comply with the requirements of the health code. Article 38 also requires periodic updating of the Air Pollutant Exposure Zone Map (about every five years) to account for changes in sources of TACs and PM_{2.5} emissions or updated health risk quantification methodologies.

Clean Construction Ordinance

The City's Clean Construction Ordinance (San Francisco Environment Code chapter 25 and San Francisco Administrative Code section 6.25, as amended March 2015), applicable to City-funded projects that require the use of heavy off-road equipment for 20 days or more that are within 1,000 feet of any residence, school, child care center, health facility, or similar sensitive receptor, requires implementation of measures to reduce diesel emissions generated at publicly funded construction sites. Specifically, for projects within the APEZ (see p. 3.D-12), the ordinance requires the use of diesel engines that meet or exceed either EPA or air board Tier 2 off-road emission standards, and that are retrofitted with an air board Level 3 Verified Diesel Emissions Control Strategy (VDECS). Use of Tier 4 construction equipment automatically meet this requirement. Additionally, the ordinance prohibits the use of portable diesel engines where alternative sources of power are available (i.e., requires use of available utility-provided electricity in lieu of a diesel generator), limits idling of diesel engines, requires that equipment be properly maintained and tuned, and mandates submittal to the authorizing City department of a construction emissions minimization plan prior to the start of work. Waivers to the equipment requirements may be granted only if compliance is not feasible or in case of emergency. For projects outside the APEZ, the ordinance requires the use of biodiesel fuel grade B20³³ or higher for off-road diesel equipment and use of Tier 2 or similar off-road equipment.

Regulation of Odors

Air district Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. The regulation limits the "discharge of any odorous substance which causes the ambient air at or beyond the property line...to be odorous and to remain odorous after dilution with four parts of odor-free air." The air district must receive odor complaints from 10 or more complainants within a 90-day period in order for the limitations of this regulation to go into effect. If this criterion has been met, an odor violation can be issued by the air district if a test panel of people can detect an odor in samples collected periodically from the source.

IMPACTS AND MITIGATION MEASURES

This section describes the impact analysis related to air quality for the Hub Plan (including streetscape and street network improvements), the HSD and the two individual projects at 30 Van Ness Avenue and 98 Franklin Street. This section describes the methods used to determine impacts and lists the thresholds that were used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the discussion of each identified significant impact.

³³ B20 is a mixture of 20 percent biodiesel and 80 percent petroleum.

SIGNIFICANCE CRITERIA

The Hub Plan (including streetscape and street network improvements and subsequent development projects enabled under the Hub Plan), the individual development projects, and the Hub HSD would have a significant effect if they would result in any of the conditions listed below.

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

APPROACH TO ANALYSIS

The Hub Plan is a regulatory program and would result in new planning policies and controls for land use to accommodate additional jobs and housing. With exception to the streetscape and street network improvements and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, the Hub Plan itself would not result in immediate physical changes to the existing environment. Effects from the Hub Plan could result as subsequent development projects allowed under the Hub Plan could replace existing residences and businesses, or increase space for residences or businesses in the Hub Plan area. As such, analysis of the Hub Plan and subsequent development projects enabled under the Hub Plan is programmatic, focusing on the environmental consequences of rezoning proposed by the Hub Plan. Analysis of the Hub Plan's streetscape and street network improvements and the two individual projects at 30 Van Ness Avenue and 98 Franklin Street is project-level, providing detailed information on the environmental effects of implementing these projects.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

The thresholds of significance used as the basis for determining criteria air pollutant and odor air quality impacts under CEQA are discussed below and are based on substantial evidence identified in Appendix D of the 2017 air district's CEQA Air Quality Guidelines³⁴ and its 2009 Justification Report.³⁵ As discussed below, the air district's CEQA Air Quality Guidelines identify different significance thresholds for plans versus projects. The analysis below contains both a Hub Plan-level and project-level analysis to address implementation of the Hub Plan and subsequent activities anticipated under the Hub Plan.

THE HUB PLAN (PROGRAM-LEVEL ANALYSIS)

The Hub Plan policy framework and rezoning is addressed at a program level. The following describes how Hub Plan-level air quality impacts are evaluated in this EIR and are based on the air district's CEQA Air Quality Guidelines for Hub Plan-level analysis.

Criteria Air Pollutants

The significance thresholds for assessment of a planning document, such as the proposed Hub Plan, involve an evaluation of whether:

- The Hub Plan would be consistent with the control measures contained in the current regional air quality plan (the 2017 Clean Air Plan), would support the primary objectives of that regional air quality plan and would not hinder implementation of that plan; the Hub Plan's growth in vehicle miles traveled (VMT) would not exceed its projected population growth; and the Hub Plan would not cause localized CO impacts.

If all foregoing questions can be answered in the affirmative, the proposed Hub Plan would not:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard.

Consistency with Clean Air Plan

The most recently adopted air quality plan for the air basin is the 2017 Clean Air Plan. The 2017 Clean Air Plan is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the 2017 Clean Air Plan, this analysis considers whether the project would (1) support the primary goals of the 2017 Clean Air Plan, (2) include applicable control measures

³⁴ Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017. Table D-2.

³⁵ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, pp. 22–76.

from the 2017 Clean Air Plan, and (3) avoid disrupting or hindering implementation of control measures identified in the 2017 Clean Air Plan. To meet the primary goals, the 2017 Clean Air Plan recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The 2017 Clean Air Plan recognizes that to a great extent, community design dictates individual travel mode, and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and greenhouse gases from motor vehicles is to channel future Bay Area growth into urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the 2017 Clean Air Plan includes 85 control measures aimed at reducing air pollution in the air basin.

Vehicle Miles Traveled and Population Growth Analysis

The threshold of significance for evaluation of an area plan's emissions of criteria air pollutants is based on consistency with regional air quality planning, including an evaluation of population growth and growth in VMT. For a proposed plan to result in less-than-significant criteria air pollutant impacts, an analysis must demonstrate that the plan's growth in VMT would not exceed the plan's population growth.

Local Carbon Monoxide Analysis

The air district has demonstrated, based on modeling, that in order to exceed the California ambient air quality standard of 9.0 ppm (eight-hour average) or 20.0 ppm (one-hour average) for CO, project traffic in addition to existing traffic would need to exceed 44,000 vehicles per hour at affected intersections (or 24,000 vehicles per hour where vertical and/or horizontal mixing is limited). Projects that do not result in 44,000 vehicles per hour in combination with background traffic (or 24,000 vehicles per hour where applicable), would not have the potential to result in a significant CO impact. The Hub Plan-level analysis is based on projected increases in vehicle trips at Hub Plan area intersections that would result from subsequent development projects (including vehicle trips that would be generated by the individual projects at 30 Van Ness Avenue and 98 Franklin Street) to determine whether the screening criteria of 44,000 vehicles per hour would be exceeded.

Community Risk and Hazard Impacts

This analysis responds to the criterion that asks whether the proposed Hub Plan would:

- Expose sensitive receptors to substantial pollutant concentrations.

The threshold of significance used to evaluate community health risks and hazards from new sources of TACs is based on the potential for the proposed Hub Plan to substantially affect the geography and severity of the APEZ at sensitive receptor locations. If the Hub Plan would result in sensitive receptor locations meeting the APEZ criteria that otherwise would not without the

Hub Plan and a PM_{2.5} concentration above 0.3 µg/m³ or cancer risk greater than 10.0 per million, a significant impact would occur. The 0.3 µg/m³ PM_{2.5} concentration and the cancer risk of 10.0 per million persons exposed are the levels below which the air district considers new sources not to make a considerable contribution to cumulative health risks.³⁶ For those locations already meeting the APEZ criteria, such as the majority of the Hub Plan area, a lower significance standard is required to ensure that the Hub Plan's contribution to existing health risks would not be significant. In these areas, if the Hub Plan's PM_{2.5} concentration exceeds 0.2 µg/m³ or results in a cancer risk greater than 7.0 per million, a significant impact would occur.³⁷

Odors

The Hub Plan would result in a significant impact with respect to odors if it would:

- Create objectionable odors affecting a substantial number of people.

For odors, a proposed land use plan must identify the location of existing and planned odor sources. The proposed land use plan must also include policies to reduce potential odor impacts if such sources are anticipated from the plan. Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. The air district identifies a screening distance for new sources of potential odors, depending on use. In general, such setback distances would avoid the potential for significant odor impacts.

SUBSEQUENT DEVELOPMENT PROJECTS (PROGRAM-LEVEL ANALYSIS), INDIVIDUALLY PROPOSED PROJECTS AT 30 VAN NESS AVENUE AND 98 FRANKLIN STREET, AND STREETScape AND STREET NETWORK IMPROVEMENTS (PROJECT-LEVEL ANALYSIS)

Criteria Air Pollutants and Precursors

For the analysis of subsequent development projects that would be enabled under the Hub Plan (other than the individual projects at 30 Van Ness Avenue and 98 Franklin Street, discussed below), the analysis is programmatic because specific project description information is unknown. A more detailed, project-level analysis is provided for the streetscape and street network improvements and individual proposed projects at 30 Van Ness Avenue and 98 Franklin Street. Both the programmatic and project-level analyses rely on quantitative thresholds of

³⁶ Bay Area Air Quality Management District, *California Environmental Quality Act Guidelines Update, Proposed Air Quality CEQA Thresholds of Significance*, May 3, 2010. Available at http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/summary_table_proposed_baaqmd_ceqa_thresholds_may_3_2010.pdf?la=en

³⁷ A 0.2 µg/m³ increase in PM_{2.5} would result in a 0.28 percent increase in non-injury mortality or an increase of about twenty-one excess deaths per 1,000,000 population per year from non-injury causes in San Francisco. This information is based on Jerrett, M., et al., *Spatial Analysis of Air Pollution and Mortality in Los Angeles*, *Epidemiology* 16 (2005): 727–736. The cancer risk has been proportionally reduced to result in a significance criteria of 7 per million persons exposed.

significance for criteria air pollutant analyses. **Table 3.D-5** summarizes these thresholds of significance. The substantial evidence supporting each threshold is provided below.

TABLE 3.D-5. CRITERIA AIR POLLUTANT SIGNIFICANCE THRESHOLDS

Pollutant	Construction Thresholds	Operational Thresholds	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO _x	54	54	10
PM ₁₀	82	82	15
PM _{2.5}	54	54	10
Fugitive Dust	Construction Dust Ordinance	Not Applicable	

Ozone Precursors

As discussed previously, the air basin is currently designated as nonattainment for ozone, PM₁₀, and PM_{2.5}. The potential for an individual project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, is based on the state and federal Clean Air Acts' emissions limits for stationary sources. The federal New Source Review program was created under the federal Clean Air Act to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of federal health based ambient air quality standards. Similarly, to ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, air district Regulation 2, Rule 2 requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors, ROG and NO_x, the offset emissions level is an annual average of 10 tons per year (or 54 pounds per day).³⁸ These levels represent emissions below which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO_x emissions as a result of increases in vehicle trips, architectural coating, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of development projects as well as the proposed streetscape and street network improvements. Projects that result in emissions below the thresholds would not be considered to contribute to an existing or projected air quality violation or result in a cumulatively considerable net increase in ROG and NO_x emissions. Because construction

³⁸ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 17.

activities are temporary in nature, only average daily thresholds are applicable to construction-phase emissions.

Particulate Matter

The federal New Source Review emissions limits for stationary sources in nonattainment areas provide appropriate thresholds for particulate matter emissions. For PM₁₀ and PM_{2.5}, the emissions limit under New Source Review is 15 tons per year (82 pounds per day) and 10 tons per year (54 pounds per day), respectively. These emissions limits represent levels at which a source is not expected to have an impact on air quality.³⁹ Similar to ozone precursor thresholds identified above, land use development projects typically result in particulate matter emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities; construction of the proposed streetscape and street network improvements would likewise result in such emissions. Therefore, the above thresholds can be applied to the construction and operational phases of development projects and to the construction of the streetscape and street network improvements. Those projects that result in emissions below the New Source Review emissions limits would not be considered to contribute to an existing or projected air quality violation or result in a cumulatively considerable net increase in PM₁₀ and PM_{2.5} emissions. Because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

Other Criteria Pollutants

Regional concentrations of CO in the Bay Area have not exceeded the state standards in the past 11 years and SO₂ concentrations have never exceeded the standards. The primary source of CO emissions from development projects is vehicle traffic. Construction-related SO₂ emissions represent a negligible portion of the total basin-wide emissions and construction-related CO emissions represent less than five percent of the Bay Area total basin-wide CO emissions.⁴⁰ As discussed previously, the air basin is in attainment for both CO and SO₂. The potential for the Hub Plan, streetscape and street network improvements, and subsequent development projects (including the individual projects at 30 Van Ness Avenue and 98 Franklin Streets) to result in significant CO impacts is addressed in the Hub Plan-level analysis because the Hub Plan-level analysis is based on the estimated amount of vehicle trips generated from anticipated subsequent development and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and considers the effect of streetscape and street network improvements. Therefore, additional programmatic or project-specific CO analysis is not required.

³⁹ Ibid., p. 16.

⁴⁰ Ibid., p. 27.

Fugitive Dust

Fugitive dust⁴¹ emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly controls fugitive dust.⁴² Individual measures have been shown to reduce fugitive dust by anywhere from 30 percent to 90 percent.⁴³ San Francisco's Construction Dust Control Ordinance requires a number of fugitive dust control measures to ensure that construction projects do not result in visible dust. Compliance with the Construction Dust Control Ordinance is the basis for determining the significance of fugitive dust emissions.

Compliance with the Construction Dust Control Ordinance ensures that fugitive dust emissions generated by projects during construction would neither:

- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard; nor
- Expose sensitive receptors to substantial pollutant concentrations.

Health Risks and Hazards

Construction activities typically require the use of heavy-duty diesel vehicles and equipment, which emit DPM, a designated TAC. Development projects that require heavy-duty diesel vehicles and equipment, as well as projects that include stationary sources, such as a diesel backup generator, would result in emissions of DPM and possibly other TACs that may affect nearby sensitive receptors. Vehicle traffic generated by development projects also result in emissions of DPM and other TACs. Construction-phase TACs, however, would be temporary, and current health risk modeling methodologies are associated with longer-term exposure periods of 9, 30, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties with producing accurate modeling results.⁴⁴ However, within the APEZ additional emissions, whether from construction or operational activities would adversely affect populations that are already at a higher risk for adverse long-term health risks. Therefore, projects within the APEZ require special consideration to determine whether a project's activities would add emissions to areas already adversely affected by poor air quality. For health risks and hazards, the project-level significance thresholds are the same as the Hub Plan-level thresholds discussed above. Because the majority of the Hub Plan area is within an APEZ, an individual project that contributes PM_{2.5} concentrations of

⁴¹ "Fugitive dust" is dust that is generated during construction and that escapes from a construction site.

⁴² Western Regional Air Partnership, *WRAP Fugitive Dust Handbook*, September 7, 2006. Available at https://www.wrapair.org/forums/dejff/dh/content/FDHandbook_Rev_06.pdf.

⁴³ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009; p. 27.

⁴⁴ Bay Area Air Quality Management District, *Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance*, October 2009, p. 29.

0.2 µg/m³ or greater or results in a cancer risk of 7.0 per million or greater would result in a significant impact.

CONSISTENCY WITH APPLICABLE AIR QUALITY PLAN

As discussed previously, the air district published the 2017 Clean Air Plan, the current applicable air quality plan for the air basin. Consistency with this plan is the basis for determining whether projects would conflict with or obstruct implementation of an applicable air quality plan. In determining whether a proposed project would conflict with the 2017 Clean Air Plan, three criteria are evaluated: (1) whether the project would support the primary goals of the 2017 Clean Air Plan; (2) whether the project implements the applicable control measures in the 2017 Clean Air Plan; and whether the project would disrupt or hinder implementation of any of these control measures.

ODORS

As noted above, the air district identifies a screening distance for new sources of potential odors, such as wastewater treatment plants, landfills and transfer stations, refineries, asphalt and chemical plants, food processing facilities, and the like, of one or two miles, depending on use.

CUMULATIVE AIR QUALITY IMPACTS

Regional air quality impacts are by their very nature cumulative impacts. Emissions from past, present and future projects contribute to adverse regional air quality impacts on a cumulative basis, and no single project is sufficiently large to result in nonattainment of ambient air quality standards. As described above, the project-level thresholds for criteria air pollutants are based on levels at which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, if a project's emissions are below the project-level thresholds, the project would not be considered to result in a considerable contribution to cumulatively significant regional air quality impacts. As a result, no separate cumulative regional criteria air pollutant analysis is provided.

The cumulative health risk analysis considers the existing health risk in and around the Hub Plan area, the incremental effect of the Hub Plan, and the effects of other cumulative projects that may not be included in the citywide modeling conducted for determining the APEZ. Specifically, with regard to traffic emissions, the cumulative health risk analysis evaluates the incremental effect of the Hub Plan's increase in vehicle traffic, in addition to growth in background traffic under 2040 cumulative conditions, consistent with the transportation analysis.

ANALYSIS ASSUMPTIONS

CONSTRUCTION AND OPERATIONAL ASSUMPTIONS FOR STREETScape AND STREET NETWORK IMPROVEMENTS

The proposed streetscape and street network improvements would include the following types of activities: widening sidewalks; introducing bicycle lanes, protected bikeways, and vehicular traffic calming features, such as bulb-outs; upgrading streetlights and adding new signalized crossings; reconfiguring vehicular traffic lanes (including removal of one travel lane on a 400-foot-long segment of Duboce Street, between Stevenson and Mission streets) and street-side vehicular parking spaces; inserting new planted medians; and introducing new green spaces and street trees. The Hub Plan has developed design recommendations for several major streets within the Hub Plan area. Selected alleys would also be improved to enhance the experience for people walking. Air quality-related impacts of these improvements are analyzed here.

The scale of construction associated with streetscape and street network improvements would be relatively minor; typical construction would focus on one or two blocks at a time. Construction durations would vary from a maximum of approximately eight to 10 weeks per block on major streets within the Hub Plan area, for the more intensive streetscape and street network changes proposed on those blocks, to a low of four to six weeks for less-intensive improvements. Equipment that would be used for streetscape and street network improvements would be expected to move linearly along the street on which work is proposed rather than operate at the same location each day. Nighttime construction activities are not anticipated for the streetscape and street network improvements.

Although proposed streetscape and street network improvements under the Hub Plan would not generate vehicle trips, the removal of one travel lane on a 400-foot-long segment of Duboce Street would redistribute vehicle trips along the network and could result in increased vehicle delay (due to congestion). The potential for such a delay was evaluated to determine if criteria air pollutant emissions would increase.

CONSTRUCTION ASSUMPTIONS FOR 30 VAN NESS AVENUE

The proposed construction plan for the 30 Van Ness Avenue Project is assumed to include one construction phase, consisting of several overlapping stages: demolition of portions of the building; excavation and shoring; foundation and below-grade construction; base buildings; exterior and interior finishing; and sidewalks and landscaping. The duration for partial demolition of the existing structure and construction of the proposed 30 Van Ness Avenue is estimated to be approximately 44 months, beginning in May 2020 and ending in December 2023. Construction would total approximately 1,149 working days occurring six days per week.⁴⁵

⁴⁵ The number of working days does not double count for overlapping construction activities.

Demolition of the existing site is expected to begin in May 2020 and last for approximately six months. During this phase, portions of the existing site would be demolished and other portions would be retained and altered. The 30 Van Ness Avenue Project would require approximately 51,000 cubic yards of material to be off hauled. The demolition phase would be followed by the site preparation and grading phases, lasting three months each. Building construction is expected to begin in May 2021 and last until December 2023. Concurrently, paving and architectural coating would take place.

OPERATIONAL ASSUMPTIONS FOR 30 VAN NESS AVENUE

Construction of the 30 Van Ness Avenue Project is expected to be completed by the end of 2023, with operations expected to begin in January 2024 (“project build-out”). Operational emissions from the 30 Van Ness Avenue Project include, for example, emissions from onsite natural gas use, as well as mobile-source emissions from new vehicle traffic, consumer products, and testing of the two emergency generators. For purposes of air quality analysis, emergency generators were modeled conservatively assuming their location on a podium height of 120 feet and are assumed to operate 50 hours per year in accordance with air district permits.⁴⁶

CONSTRUCTION ASSUMPTIONS FOR 98 FRANKLIN STREET

The proposed construction plan for the 98 Franklin Street Project is assumed to include one construction phase, consisting of several overlapping stages. Construction activities would begin with demolition of the existing parking lot. The duration for demolition of the existing parking lot and construction of the proposed 98 Franklin Street Project is estimated to be approximately 27 months, beginning in June 2021 and ending in August 2023. Construction would total approximately 569 working days, during which construction activities using off-road and on-road equipment would be conducted.

OPERATIONAL ASSUMPTIONS FOR 98 FRANKLIN STREET

Construction of the 98 Franklin Street Project is expected to be completed by August 2023, with operations expected to begin in September 2023. Operational emissions associated with the project include, for example, emissions from onsite natural gas use as well as mobile-source emissions from vehicle traffic, consumer products, and testing for one emergency generator. The 98 Franklin Street

⁴⁶ Depending on the mix of office and residential in the Van Ness Avenue Project, the podium may be either approximately 120 feet or approximately 150 feet. For purposes of this analysis, emergency generators are modeled at the more conservative (i.e., worst case impact) height of 120 feet. The 120 foot podium yields the more conservative case because the majority of the Hub Plan-level receptors are located 1.8 meters (5.9 feet) above the ground. The podium closer to the ground would have greater impacts on these ground-level receptors. Within the 30 Van Ness Avenue project site and nearby buildings, receptors were modeled at varying elevations to capture the impacts at elevation. When comparing the two podium heights, the differences in maximum impacts from the generators on a 120-foot versus 150-foot podium height were minimal.

Project would have a backup generator on level 2, venting out to level 5. The generator is assumed to operate 50 hours per year in accordance with air district permits.

IMPACT EVALUATION

CLEAN AIR PLAN 2017 ANALYSIS (CONSTRUCTION AND OPERATIONS)

Impact AQ-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with or obstruct implementation of the 2017 Clean Air Plan. (Less than Significant)

The Hub Plan

As previously discussed, the most recently adopted air quality plan for the San Francisco Bay Area Air Basin is the 2017 Clean Air Plan.⁴⁷ The 2017 Clean Air Plan is a road map that demonstrates how the Bay Area will, in accordance with the requirements of the California Clean Air Act, implement all feasible measures to reduce ozone precursors (ROG and NO_x) and reduce transport of ozone and its precursors to neighboring air basins. It also provides a climate and air pollution control strategy to reduce ozone, PM, toxic air contaminants, and GHGs that builds upon existing regional, state and national programs.

In determining consistency with the 2017 Clean Air Plan, this analysis considers whether the proposed Hub Plan (including the proposed streetscape and street network improvements), subsequent development projects, and each of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street (as discussed below) would (1) support the primary goals of the 2017 Clean Air Plan, (2) include applicable control measures from the 2017 Clean Air Plan, and (3) avoid disrupting or hindering implementation of control measures identified in the 2017 Clean Air Plan.

The primary goals of the 2017 Clean Air Plan are: to protect air quality and public health at the regional and local scale and protect the climate by reducing regional criteria air pollutant emissions; reducing local air-quality-related health risks (by meeting state and national ambient air quality standards); and reducing GHG emissions (by reducing GHG emissions to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050).⁴⁸

To meet these goals, the 2017 Clean Air Plan has defined 85 individual control measures that describe specific actions to reduce emissions of air and climate pollutants across a full range of emission sources.⁴⁹ These control measures are grouped into the following sectors based upon the

⁴⁷ Bay Area Air Quality Management District, 2017 Bay Area Clean Air Plan, April 19, 2017, http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en, accessed February 20, 2019.

⁴⁸ The air district's 2030 GHG target is consistent with the California's GHG 2030 reduction target, per Senate Bill 32. The air district's 2050 target is consistent with the state's 2050 GHG reduction target per Executive Order S-3-05.

⁴⁹ Bay Area Air Quality Management District, 2017 Clean Air Plan, Table 5-13.

economic sector framework used by the Air Resources Board for the AB 32 Scoping Plan Update: stationary (industrial) sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The Hub Plan and its related actions would support the primary goals of the 2017 Clean Air Plan by supporting the applicable measures that aim to achieve these goals, as discussed below. It is noted that the vast majority of the control measures included in the 2017 Clean Air Plan do not apply directly to the Hub Plan and its related actions because they target facilities or land uses that do not currently exist and would not be permitted in the Hub Plan area (e.g., industrial, energy generation, waste management, agricultural, forest or pasture lands); vehicles or equipment that would not be employed in the Hub Plan area (e.g., airplanes, ships, and farming equipment); and/or involve rulemaking or other actions under the jurisdiction of agencies not directly involved with design and approval of the Hub Plan and its related actions.

In general, new development in San Francisco incorporates many of the applicable control measures identified in the 2017 Clean Air Plan through a combination of the planning code and building code (including green building code) provisions, and various local and state policies that promote high-density land use patterns, allow or require reduction of off-street parking facilities, encourage tree plantings and water and energy conservation, divert waste, and promote transit and bicycling as primary modes of transport. The Hub Plan would continue to support these measures and would not hinder their implementation. The most relevant and applicable measures that the Hub Plan would support (and thus, include as part of its implementation) are discussed in detail below.

For example, the transportation control measure TCM-D3, “Local Land Use Strategies,” calls for promoting and supporting land use patterns, policies, and infrastructure investments that support high-density mixed-use, residential, and employment development to facilitate walking, bicycling, and transit use. The compact, dense mixed-use development that would be encouraged by the proposed Hub Plan, in combination with the Hub Plan area having multiple transportation options that encourage residents, tenants, employees, and visitors to bicycle, walk, and use transit to and from the Hub Plan area instead of using private automobiles, would ensure consistency with this clean air plan control measure.

Transportation control measure TR13, “Parking Policies,” calls for encouraging parking policies and programs in local plans by reducing minimum parking requirements, limiting the supply of off-street parking in transit-oriented areas, unbundling the price of parking spaces and supporting implementation of demand-based pricing (such as “SF Park”) in high-traffic areas. The Hub Plan would achieve this through proposed planning code amendments that would limit off-street parking spaces to 0.25 per dwelling unit. Moreover, in December 2018, the city passed an ordinance that eliminated required parking minimums citywide for all uses. In addition, Planning Code section 169 would require project sponsors of subsequent development projects to develop and implement a Transportation Demand Management (TDM) plan to reduce the use

of single-occupancy vehicles and encourage the use of transit and nonmotorized travel modes. Furthermore, the Hub Plan's proposed streetscape and street network improvements would encourage nonmotorized travel by widening sidewalks, introducing bicycle lanes, protected bikeways, and vehicular traffic calming features, such as bulb-outs, upgrading streetlights and adding new signalized crossings.

The building sector control measure BL1, "Green Buildings," calls for identifying barriers to effective local implementation of the CALGreen (Title 24) statewide building energy code and developing solutions to improve implementation/enforcement. Subsequent projects under the Hub Plan would be subject to the San Francisco Green Building Code and, as such, would comply with some of the most stringent building energy-related requirements in the country.

The waste sector control measure WA3, "Green Waste Diversion," calls for developing model policies to facilitate local adoption of ordinances and programs to reduce the amount of green waste going to landfills. The subsequent projects that would be implemented under the Hub Plan would support this measure by complying with the Mandatory Recycling and Composting Ordinance as well as requirements in the San Francisco Green Building Code to divert 75 percent of demolition debris from landfills.

As noted above, the Hub Plan and subsequent projects would support the primary goals of the 2017 Clean Air Plan by including the Hub Plan's applicable control measures, which are implemented through numerous regulations that are already established for new developments throughout the city and the proposed Hub Plan would not change those requirements. In addition, subsequent development projects in the Hub Plan area, including 30 Van Ness Avenue and 98 Franklin Street, would be required to implement various mitigation measures identified during the environmental review process that would further protect air quality and public health. These measures are described in detail, under Impacts AQ-4, AQ-5, AQ-7 and AQ-9.

As described above, the Hub Plan would strongly support all of the applicable control measures in the 2017 Clean Air Plan that are intended to help the Bay Area attain state and federal air quality standards. Regarding public health, although the Hub Plan would encourage new sensitive land uses, including residents in the APEZ, the Hub Plan area is also in proximity to numerous transit and other amenities that support a reduction in VMT and consequent mobile source emissions. Further, article 38 of the San Francisco Health Code (Enhanced Ventilation Required for Urban Infill Sensitive Use Developments Ordinance) is intended to reduce air quality health impacts to new residential uses in areas of poor air quality by requiring enhanced ventilation. New development in the Hub Plan area would be subject to this requirement, and therefore the Hub Plan would protect public health through required adherence to *Health Code* article 38.

Greenhouse gas emissions associated with the proposed Plan were discussed in the initial study where it is determined that the Hub Plan would be consistent with the Greenhouse Gas Reduction

Strategy, and therefore would result in less-than-significant impacts with regard to greenhouse gas emissions. As described in the initial study, under section E.8, Greenhouse Gas Emissions, development projects proposed in the Hub Plan area would be required to demonstrate consistency with San Francisco's *Strategies to Address Greenhouse Gas Emissions*, which presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's qualified GHG reduction strategy in compliance with CEQA Guidelines. Moreover, the Hub Plan would not otherwise disrupt or hinder implementation of the 2017 Clean Air Plan by, for example, precluding extension or expansion of bikeways or routes (on the contrary, the Hub Plan would enhance existing and planned bicycle lanes and provide bicycle facilities and infrastructure in the Hub Plan area); precluding extension of a transit line (the Hub Plan aims to enhance transit use); or providing excessive parking beyond parking requirements (the Hub Plan would limit the amount of parking allowed for new development projects).

In light of the above, the Hub Plan, including subsequent development projects and proposed streetscape and street network improvements, would be consistent with the 2017 Clean Air Plan control measures, would not hinder implementation of the Hub Plan, and would support the primary goals of the Hub Plan. Thus, the Hub Plan would not conflict with the 2017 Clean Air Plan and this impact would be *less than significant*.

30 Van Ness Avenue and 98 Franklin Street Projects

The control measures identified in the 2017 Clean Air Plan that are most applicable to the individual projects at 30 Van Ness Avenue and 98 Franklin Street are those identified for the Hub Plan, above. Similar to subsequent development projects that would be subject to existing federal, state, and local regulations that already apply to new development projects in San Francisco, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would likewise meet the applicable 2017 Clean Air Plan measures discussed above (TCM-D3, TR13, BL1 and WA3). Specifically, the locations of the project sites, and densities and mixed-use nature of each of the proposed projects would support TCM D3, "Local Land Use Strategies," which, as noted above, calls for promoting and supporting land use patterns, policies, and infrastructure investments that support high-density mixed-use, residential, and employment development to facilitate walking, bicycling, and transit use. Moreover, both projects would be required to implement a TDM plan and would meet bicycle parking requirements, which would reduce the use of single-occupancy vehicles and encourage the use of transit and nonmotorized travel modes. Other transportation-related features that would be included with the projects at 30 Van Ness Avenue and 98 Franklin Street include providing car-share parking spaces, pursuant to Planning Code section 166; unbundled parking, pursuant to Planning Code section 167; and installation of electric vehicle charging stations for at least 8 percent of the parking program, pursuant to San Francisco Green Building Code section 5.106.5. Many of the TDM measures and other features of both of these projects would align with the transportation control measures identified in Table 5-13 of the 2017 Clean Air Plan (e.g., TR2-Trip Reduction Programs, TR3-Local

and Regional Bus Service, TR9-Bicycle and Pedestrian Access and Facilities, TR14-Cars and Light Trucks, and TR15-Public Outreach and Education).

The 98 Franklin Street Project would provide less off-street parking than is currently permitted by Planning Code section 151.1. The 30 Van Ness Avenue project sponsor would seek a planning code text amendment that would allow a mixed-use project in the Hub Plan area, providing at least 25 percent onsite (or 33 percent offsite) affordable housing to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would be 7 percent of the occupied floor area. The 30 Van Ness Avenue Project would not exceed these amounts. Moreover, with a vehicular parking ratio well below 1:1 (one parking space per one dwelling unit), the 30 Van Ness Avenue Project would have a low parking ratio compared with regional parking ratios and thus would be consistent with the 2017 Clean Air Plan overall.

Individual development projects at 30 Van Ness Avenue and 98 Franklin Street would be required to comply with all applicable existing requirements that further the goals of the 2017 Clean Air Plan including: planting of trees along the project sites' perimeter sidewalks (NW2-Urban Tree Planting); adherence to local policies that promote composting and that aim to reduce waste for both construction and operations (WA3-Green Waste Diversion and WA4-Recycling and Waste Reduction); and implementation of a non-potable water reuse system in all proposed new and adaptively-reused buildings (WR2-Support Water Conservation)

In addition, the proposed projects' impact with respect to GHGs is discussed in the initial study (see EIR Appendix B, Topic E.7, Greenhouse Gas Emissions). As stated there, the projects at 30 Van Ness Avenue and 98 Franklin Street would be compliant with the City's Greenhouse Gas Reduction Strategy and thus, would not result in any significant impacts associated with an increase in GHGs or conflict with measures adopted for the purpose of reducing such emissions. The city's greenhouse gas compliance checklist for private projects lists regulatory requirements, many of which are related to transportation, energy conservation, waste reduction, and water conservation and would align with those specific sectors of the 2017 Clean Air Plan control measures.

Moreover, neither project would avoid or hinder the implementation of the control measures identified in the 2017 Clean Air Plan because they would not interfere with the City's ability to continue to enforce regulations for individual projects that seek to achieve the primary goals of the 2017 Clean Air Plan.

Conclusion

For the reasons described above, the Hub Plan (including the proposed streetscape and street network improvements), subsequent development projects, and individual development projects at 30 Van Ness Avenue or 98 Franklin Street would support the primary goals of the 2017 Clean

Air Plan, include applicable control measures from the 2017 Clean Air Plan as part of their implementation, and would not interfere with implementation of the 2017 Clean Air Plan. As all project components would be consistent with the applicable air quality plan that demonstrates how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant, and no mitigation measures are necessary.

Mitigation: None required.

CRITERIA AIR POLLUTANTS

Impact AQ-2. The Hub Plan would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. (Less than Significant)

The Hub Plan

As discussed in the Approach to Analysis section, in order for a proposed plan to result in less-than-significant criteria air pollutant impacts, an analysis must demonstrate that the plan would be consistent with the control measures contained in the current regional air quality plan (the 2017 Clean Air Plan), would support the primary objectives of that plan, and would not hinder implementation of that plan. Furthermore, analysis must demonstrate that the plan's growth in VMT would not exceed the plan's population growth, and the plan would not cause localized CO impacts.

As demonstrated in Impact AQ-1, the Hub Plan would be consistent with the applicable control measures contained in the 2017 Clean Air Plan, would support the primary objectives of that plan, and would not hinder implementation of the plan. The remainder of the analysis addresses the Hub Plan's growth in VMT and population and potential for localized CO impacts. This analysis is based on the Hub Plan-level thresholds identified by the air district in its CEQA Air Quality Guidelines.

Growth in Vehicle Miles Traveled Compared to Growth in Population

Growth projections prepared by the San Francisco Planning Department (and discussed under Analysis Assumptions in the Overview subsection of Chapter 3, Environmental Setting, Impacts, and Mitigation Measures) indicate that with implementation of the Hub Plan, Hub Plan area residential population would increase from approximately 8,100 in 2018 to 23,800, by 2040, the analysis horizon year. This represents an increase of 194 percent. Additionally, employment is projected to slightly decrease from about 13,200 under existing conditions to approximately 11,600 by 2040, a decrease of 12 percent. The combined population-employment ("service population") increase with implementation of the Hub Plan, would therefore be approximately 66 percent.

Based on output from the County Transportation Authority travel demand model, daily VMT to and from the Hub Plan area would increase by approximately 35 percent, from approximately 315,500 VMT under 2020 baseline conditions to approximately 426,600 VMT under 2020 Hub Plan conditions.

Because the growth in vehicle miles would be less than the growth in the Hub Plan's "service population," the Hub Plan would result in a less-than-significant impact with respect to regional criteria air pollutants. In addition, the development patterns that would be encouraged by the Hub Plan would reduce criteria pollutant emissions, compared with other potential development in the city or the region, by providing additional high-density, mixed-use development in a neighborhood with one of the most extensive arrays of transit service in the Bay Area and improving access for people walking and bicycling within, to, or from the Hub Plan area. In light of the analysis above, implementation of the Hub Plan would result in a *less-than-significant* impact with respect to regional emissions of criteria air pollutants.

Carbon Monoxide

Unlike other criteria pollutants, whose effects are regional, CO impacts are evaluated locally. However, the air district generally recommends intersection-specific modeling of CO concentrations only for intersections where traffic volumes would exceed 44,000 vehicles per hour, based on modeling of vehicle emissions demonstrating that below this volume of traffic CO concentrations would not exceed the applicable state air quality standards. Based on the traffic analysis completed for the Hub Plan, the maximum with Hub Plan peak-hour traffic volume at any of the study intersections in the transportation study area (South Van Ness Avenue at 13th Street) would be 5,390 vehicles per hour, and the maximum at any of the study intersections would be 6,260 vehicles per hour under 2040 cumulative conditions (also at South Van Ness Avenue at 13th Street). Therefore, because the maximum number of vehicles per hour is well below the screening criteria for quantitative CO analysis, modeling of CO concentrations is not required, and the Hub Plan would not be anticipated to exceed the state one-hour or eight-hour CO standards. Therefore, impacts related to CO would also be *less than significant*.

As demonstrated in the above analysis, the Hub Plan would be consistent with the control measures contained in the current regional air quality plan (the 2017 Clean Air Plan), would support the primary objectives of the 2017 Clean Air Plan and would not hinder implementation of the 2017 Clean Air Plan. Additionally, the rate of growth in VMT with implementation of the Hub Plan would not exceed the Hub Plan's rate of population growth and the Hub Plan would not cause localized CO impacts. Therefore, the Hub Plan would not result in a cumulatively considerable net increase in criteria pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.

Mitigation: None required.

Impact AQ-3. The construction and operation of streetscape and street network improvements proposed as part of the Hub Plan would not result in a cumulatively considerable net increase in criteria pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. (Less than Significant)

Construction

As described in Chapter 2, Project Description, this EIR analyzes proposed streetscape and street network improvements at a project-specific level of detail. The streetscape and street network improvements that are proposed by the Hub Plan would include the following types of activities: widening sidewalks; introducing bicycle lanes, protected bikeways, and vehicular traffic calming features, such as bulb-outs; upgrading streetlights and adding new signalized crossings; reconfiguring vehicular traffic lanes (including removal of one 400-foot-long segment of Duboce Street, between Stevenson and Mission streets) and street-side vehicular parking spaces; inserting new planted medians; and introducing new green spaces and street trees. The Hub Plan has developed design recommendations for several major streets within the Hub Plan area. Selected alleys would also be improved to enhance the experience for people walking. Air quality-related effects of these improvements are analyzed here.

Construction activities to implement the streetscape and street network improvements would be required to comply with the Construction Dust Control Ordinance aimed at reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and avoid orders to stop work by DBI; in particular, section 1247 makes the ordinance specifically applicable to construction on City property even where no building code permit requirement is triggered. The ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from DBI. Compliance with the regulations and procedures set forth in the San Francisco Dust Control Ordinance would ensure that potential dust-related construction air quality impacts from the streetscape and street network improvements would be reduced to a less-than-significant level.

In terms of criteria air pollutant emissions associated with constructing the streetscape and street network improvements, these would be relatively minor, because, as noted above, under Analysis Assumption, typically one or two blocks of streetscape and street network improvements would be under construction at any given time, with the construction duration for the individual streetscape and street network improvements expected to last eight to 10 weeks per block, at most, for each improvement. Public projects such as the proposed streetscape and street network improvements would be subject to the conditions of the Clean Construction Ordinance. This ordinance requires that City-funded projects within the APEZ use diesel engines that meet or exceed either EPA or air board Tier 2 off-road emission standards and be retrofitted

with an air board Level 3 verified diesel emissions control strategy (VDECS), prohibits the use of portable diesel engines where alternative sources of power are available (i.e., requires use of available utility-provided electricity in lieu of a diesel generator), limits idling of diesel engines, requires that equipment be properly maintained and tuned, and mandates submittal to the authorizing City department of a construction emissions minimization plan prior to the start of work. Compliance with the Clean Construction Ordinance, as is required, would reduce exhaust emissions of criteria air pollutants from construction of streetscape and street network improvement projects.

As part of preparation of the Central SoMa Plan EIR,⁵⁰ the planning department performed a quantitative analysis of construction-phase criteria air pollutants associated with streetscape and street network improvements that were proposed as part of that plan. The streetscape and street network improvements proposed under the Central SoMa Plan are similar to the types of streetscape and street network improvements that are proposed as part of the Hub Plan. That analysis assumed that one block of streetscape and street network construction could be completed in a single day to provide a conservative (i.e., higher) estimate of the daily emissions from construction activities. That analysis concluded that using conservative assumptions (inputs that would result in greater emissions), average daily construction criteria air pollutant emissions would be: 14 lbs/day for ROG; 24 lbs/day for NO_x, 1.3 lbs/day for PM₁₀, and 1.2 lbs/day for PM_{2.5}. These emissions levels are well below the significance criteria of 54 lbs/day for ROG, NO_x, and PM_{2.5}, and 82 lbs/day for PM₁₀. In addition, a quantitative analysis of construction criteria air pollutant impacts was conducted for the Sixth Street Improvement Project. This project would reduce the number of vehicular travel lanes from four to two, widen sidewalks on both sides of Sixth Street between Market and Howard streets, install new bulb outs at most intersections between Market and Howard streets, install raised crosswalks, new bicycle lanes on both sides of Sixth Street and install streetscape and street network elements such as street trees, lighting fixtures, bicycle racks etc. This project is similar to the more extensive streetscape and street network improvements proposed for the Hub Plan (specifically, street segment rather than alley improvements). The quantitative criteria air pollutant analysis determined that average daily construction criteria air pollutant emissions would be: 0.73 lbs/day for ROG, 13.37 lbs/day for NO_x, and 0.09 lbs/day for PM₁₀ and PM_{2.5}.⁵¹ The analysis for Sixth Street Improvement Project was based on specific construction equipment information provided by the SFMTA and as demonstrated above, the results indicate criteria air pollutant emissions for this similar project would likewise be well below significance thresholds.

⁵⁰ Central SoMa Plan Draft Environmental Impact Report (Planning Department Case No. 2011.1356E), December 14, 2016, https://sfplanning.org/environmental-review-documents?field_environmental_review_categ_target_id=214&items_per_page=10, accessed on April 19, 2019.

⁵¹ Sixth Street Pedestrian Safety Project, Final Negative Declaration (Planning Department Case No. 2014.1010E), October 23, 2017, http://sfmea.sfplanning.org/2014.1010E_FND.pdf.

Although detailed construction information for the streetscape and street network improvements have not been developed for the Hub Plan, because the proposed streetscape and street network improvements under the Hub Plan would be similar to (and not more intensive than) those proposed in the Central SoMa Plan and the Sixth Street Improvement Project, for which quantitative analysis was conducted and determined that emissions would be well below the criteria air pollutant significance thresholds, the streetscape and street network improvements proposed in the Hub Plan too would result in *less than significant* construction-related criteria air pollutant emissions.

Mitigation: None required.

Operation

With regard to operational criteria air pollutant emissions, the proposed streetscape and street network improvements would include a variety of projects intended to enhance the experience for people walking and bicycling and to generally improve the visual quality and functionality of the public realm throughout the Hub Plan area. As noted above, such improvements would include sidewalk widening, creation or enhancements of bicycle lanes, installation of traffic calming features and reconfiguration of vehicular traffic lanes and street-side vehicular parking spaces.

In terms of travel lane reductions, the Hub Plan proposes to remove one of the three westbound lanes on a single, approximately 400-foot-long segment of Duboce Street, between Stevenson and Mission streets. This lane reduction could potentially cause congestion along this segment during peak periods and result in slower traffic speeds with higher criteria air pollutant emissions than would occur during free-flowing traffic conditions. Lane reductions could also encourage drivers to use other nearby streets, resulting in redistribution of vehicle trips along the roadway network. A quantitative analysis of operational criteria air pollutant impacts from the Sixth Street Improvement project was conducted. As discussed above, that project included elements that would be similar to the streetscape and street network improvements proposed under the Hub Plan. The analysis conducted for the Sixth Street Improvement Project concluded that increases in criteria air pollutants, as a result of redistribution of traffic or additional vehicle delay, would not be significant and would result in increases on the order of: 5 lbs/day for ROG, 9.9 lbs/day for NO_x, and 0.1 lbs/day each for PM₁₀ and PM_{2.5}. Therefore, because the majority of proposed streetscape and street network improvement projects would be similar to (and none would be more intensive than) the Sixth Street Improvement Project, which found criteria air pollutants to be less than significant, criteria air pollutant emissions from Hub Plan streetscape and street network improvement projects would similarly be *less than significant*.

Mitigation: None required.

Impact AQ-4. During construction, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status

under an applicable federal, state, or regional ambient air quality standard. (Less than Significant with Mitigation)

Implementation of the Hub Plan, except for the Hub Plan's proposed streetscape and street network improvement projects, which are addressed above under Impact AQ-3, would not, in and of itself, result in construction related-emissions. However, for the purposes of the Hub Plan-level analysis, it is recognized that construction of subsequent development projects would result in criteria air pollutant emissions, the effects of which are analyzed here.

Implementation of the Hub Plan would allow for development of new residential, office, retail, and other uses, at a greater intensity than is currently allowed under existing land use controls. Most development projects in the Hub Plan area would entail demolition and removal of existing structures, excavation, site preparation and construction of new buildings. Emissions generated during construction activities would include exhaust emissions from heavy duty construction equipment, trucks used to haul construction materials to and from sites, and worker vehicle emissions, as well as fugitive dust emissions associated with earth-disturbing activities and other demolition and construction work.

Construction Dust

Activities that generate dust include building and parking lot demolition, excavation, and equipment movement across unpaved construction sites. Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust that adds particulate matter to the local atmosphere. Depending on exposure, adverse health effects can occur due to this particulate matter in general and also due to specific contaminants such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved a series of amendments to the building code and health code generally referred to as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of onsite workers, minimize public nuisance complaints, and avoid orders to stop work by DBI.

The ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from DBI. The Director of DBI may waive this requirement for activities on sites less than one-half acre that are unlikely to result in any visible wind-blown dust.

For project sites over one-half acre, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the San Francisco Department of Public Health. DBI will not issue a building permit without written notification from the Director of Public Health

that the applicant has a site-specific Dust Control Plan, unless the Director waives the requirement.

The site-specific Dust Control Plan requires the project sponsor to submit a map to the Director of Public Health showing all sensitive receptors within 1,000 feet of the site; wet down areas of soil at least three times per day; provide an analysis of wind direction and install upwind and downwind particulate dust monitors; record particulate monitoring results; hire an independent, third-party to conduct inspections and keep a record of those inspections; establish shut-down conditions based on wind, soil migration, etc.; establish a hotline for surrounding community members who may be potentially affected by project-related dust; limit the area subject to construction activities at any one time; install dust curtains and windbreaks on the property lines, as necessary; limit the amount of soil in haul trucks to the size of the truck bed and secure with a tarpaulin; enforce a 15-mile-per-hour speed limit for vehicles entering and exiting construction areas; sweep affected streets with water sweepers at the end of the day; install and use wheel washers to clean truck tires; terminate construction activities when winds exceed 25 miles per hour; apply soil stabilizers to inactive areas; and sweep off adjacent streets to reduce particulate emissions. The project sponsor would be required to designate an individual to monitor compliance with these dust control requirements.

Compliance with the regulations and procedures set forth in the San Francisco Dust Control Ordinance would ensure that potential dust-related construction air quality impacts from subsequent development projects would be reduced to a *less-than-significant* level.

Construction Equipment Exhaust

The air district, in its CEQA Air Quality Guidelines (May 2017) developed screening criteria to determine if construction or operational emissions from projects would violate an air quality standard, contribute substantially to an air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. A project that exceeds the screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds.⁵² The screening criteria for land uses expected in the Hub Plan area are shown in **Table 3.D-6**.

TABLE 3.D-6. OPERATIONAL AND CONSTRUCTION CRITERIA AIR POLLUTANT SCREENING FOR EXPECTED HUB PLAN AREA USES

Land Use	Screening Size for Operational Criteria Pollutants (Pollutant of Concern in Parentheses)	Screening Size for Construction Criteria Pollutants (Pollutant of Concern in Parentheses)
Apartment/Condo, low-rise	451 du (ROG)	240 du (ROG)
Apartment/Condo, mid-rise	494 du (ROG)	240 du (ROG)

⁵² Bay Area Air Quality Management District, CEQA Air Quality Guidelines, updated May 2017. Table 3-1.

TABLE 3.D-6. OPERATIONAL AND CONSTRUCTION CRITERIA AIR POLLUTANT SCREENING FOR EXPECTED HUB PLAN AREA USES

Land Use	Screening Size for Operational Criteria Pollutants (Pollutant of Concern in Parentheses)	Screening Size for Construction Criteria Pollutants (Pollutant of Concern in Parentheses)
Apartment/Condo, high-rise	510 du (ROG)	249 du (ROG)
Retirement community	487 du (ROG)	114 du (ROG)
Congregate care facility	657 du (ROG)	240 du (ROG)
Day-care center	53 ksf (NO _x)	277 ksf (ROG)
Place of worship	439 ksf (NO _x)	277 ksf (ROG)
City park	2613 acres (ROG)	67 acres (PM ₁₀)
Health club	128 ksf (NO _x)	277 ksf (ROG)
Quality restaurant	47 ksf (NO _x)	277 ksf (ROG)
High turnover restaurant	33 ksf (NO _x)	277 ksf (ROG)
Fast food rest. w/ drive thru	6 ksf (NO _x)	277 ksf (ROG)
Hotel	489 rooms (NO _x)	554 rooms (ROG)
Retail store	83 ksf (NO _x)	277 ksf (ROG)
Supermarket	42 ksf (NO _x)	277 ksf (ROG)
General office building	346 ksf (NO _x)	277 ksf (ROG)
Pharmacy/drugstore	48 ksf (NO _x)	277 ksf (ROG)
Medical office building	117 ksf (NO _x)	277 ksf (ROG)
Warehouse	864 ksf (NO _x)	259 ksf (NO _x)
General light industry	541 ksf (NO _x)	259 ksf (NO _x)

Source: Bay Area Air Quality Management District, CEQA Air Quality Guidelines, updated May 2017, Table 3-1.

Notes:

du = dwelling units; ksf = thousand square feet; NO_x = oxides of nitrogen; ROG = reactive organic gases

Screening levels include indirect and area source emissions, but not backup generators or industrial sources.

It is likely that some subsequent projects (those located on smaller sites or on sites proposed for moderate upzoning and that do not require substantial excavation of 10,000 cubic yards or more) would be below these screening levels and would, therefore, be presumed to result in criteria air pollutant emissions that do not exceed the air district's significance thresholds. These smaller projects would result in less than significant construction criteria air pollutant impacts. However, other subsequent projects (those located on larger sites or on sites proposed for substantial upzoning or that would require substantial excavation of 10,000 cubic yards or more) have the potential to generate emissions of criteria air pollutants that would exceed the screening criteria established by the air district. These projects would require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds.

Based on quantitative air quality assessments conducted by the department for large projects over the years, it is conceivable that a project involving high-rise construction (of approximately 500 residential units or requiring substantial excavation of 10,000 cubic yards or more) could result in construction-related criteria air pollutant emissions (specifically ROG and NO_x emissions) in excess of air district's significance threshold.⁵³ Therefore, because it is possible that subsequent development projects, which would be enabled by the Hub Plan, would be large enough to exceed the screening criteria established by the air district and require quantitative analysis, the results of which may exceed the criteria air pollutant significance thresholds, subsequent development projects could result in a *significant* impact.

The following mitigation measures would be required for subsequent development projects proposed in the Hub Plan area, with the exception of individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which are analyzed separately under Impact AQ-6.

Mitigation Measures

M-AQ-4a *Construction Emissions Analysis for Projects Above Screening Levels or That Exceed Criteria Air Pollutant Significance Thresholds.* Subsequent development projects that do not meet the applicable screening levels in **Table 3.D-6**, p. 3.D-46, of this EIR or that the planning department otherwise determines could exceed one or more significance thresholds for criteria air pollutants shall undergo an analysis of the project's construction emissions. If no significance thresholds are exceeded, no further mitigation is required. If one or more significance thresholds are exceeded, Mitigation Measure M-AQ-4b shall be implemented.

M-AQ-4b *Construction Emissions Minimization Plan for Projects Above Screening Levels or That Exceed Criteria Air Pollutant Significance Thresholds or as Required in Impact AQ-7.* If required based on the analysis described in Mitigation Measure M-AQ-4a or as required in Impact AQ-7 the project sponsor shall submit a construction emissions minimization plan to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist.

The construction emissions minimization plan shall detail project compliance with the following requirements:

1. All off-road equipment greater than 25 horsepower and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

⁵³ The criteria of 500 units of residential uses is based on CalEEMod version 2013.2.2 year 2016 construction with the default construction equipment and construction phasing that would result in emissions of one or more criteria pollutants from project construction or operation that would approach the significance thresholds.

- a) Where access to alternative sources of power is reasonably available, portable diesel engines shall be prohibited;
- b) All off-road equipment shall have:
 - i. Engines that meet or exceed either U.S. Environmental Protection Agency or California Air Resources Board (air board) Tier 2 off-road emission standards (or Tier 3 or Tier 4 off-road emissions standards if NO_x emissions exceed applicable thresholds), *and*
 - ii. Engines that are retrofitted with an air board Level 3 Verified Diesel Emissions Control Strategy (VDECS),⁵⁴ *and*
 - iii. Engines shall be fueled with renewable diesel (at least 99 percent renewable diesel or R99).
 - iv. Any other best available technology offered at the time that future projects are submitted to the planning department for review may be included in the construction emissions minimization plan as substitutions for the above items i through iii.
- c) Exceptions:
 - i. Exceptions to 1(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with 1(b) for onsite power generation.
 - ii. Exceptions to 1(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a particular piece of off-road equipment with an air board Level 3 VDECS (1) is technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an air board Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to 1(b)(ii), the project sponsor shall comply with the requirements of 1(c)(iii).

⁵⁴ Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore VDECS would not be required.

- iii. If an exception is granted pursuant to 1(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedule in **Table M-AQ-4B**:

TABLE M-AQ-4B. OFF-ROAD EQUIPMENT COMPLIANCE STEP-DOWN SCHEDULE*

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2**	Air Board Level 2 VDECS
2	Tier 2	Air Board Level 1 VDECS

* How to use the table. If the requirements of 1(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met.

** Tier 3 off road emissions standards are required if NO_x emissions exceed applicable thresholds.

- iv. Exceptions to 1(b)(iii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a renewable diesel is not commercially available in the San Francisco Bay Area Air Basin. If an exception is granted pursuant to this section, the project sponsor shall use another type of alternative fuel, such as biodiesel (B20 or higher).
 - v. Prior to any waiver sought by a project sponsor, the sponsor shall provide documentation demonstrating that by granting the waiver, the project would not exceed any applicable criteria air pollutant threshold.
2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
 3. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.
 4. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine

model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and hours of operation. For the VDECS installed: technology type, serial number, make, model, manufacturer, air board verification number level, and installation date and hour meter reading on installation date. For off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used.

5. The construction emissions minimization plan shall be kept onsite and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the plan and a way to request a copy of the plan. The project sponsor shall provide copies of the construction emissions minimization plan as requested.
6. *Reporting.* Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 4, above. In addition, for off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used.

Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in Paragraph 4. In addition, for off-road equipment not using renewable diesel, reporting shall indicate the type of alternative fuel being used.

7. *Certification Statement and Onsite Requirements.* Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.

It should be noted that for specialty equipment types (e.g., drill rigs, shoring rigs and concrete pumps) it may not be feasible for construction contractors to modify their current, older equipment to accommodate the particulate filters, or for them to provide newer models with these filters pre-installed. Therefore, alternative compliance options are provided for in Mitigation Measure M-AQ-4b.

Significance after Mitigation

Implementation of Mitigation Measures M-AQ-4a and M-AQ-4b would ensure that construction-related emissions would be less than significant. Requiring Tier 3 construction equipment can

reduce construction emissions of ROG and NO_x by 14 and 36 percent, respectively while emissions of diesel particulate matter can be reduced by 89 to 94 percent with Level 3 VDECS compared to equipment with engines meeting no emission standards. Renewable diesel R100 has the potential to reduce particulate matter emissions by about 30 percent and NO_x emissions by 10 percent.⁵⁵ Because construction emissions are assessed based on average daily emissions over the entirety of the construction period, and given the parcel sizes in the Hub Plan area,⁵⁶ this level of reduction would be sufficient to ensure that even for larger projects in the Hub Plan area, construction related emissions would be below significance thresholds.

Based on the above, impacts associated with construction equipment exhaust emissions of criteria air pollutants from subsequent development projects under the Hub Plan are considered *less than significant with mitigation*.

Impact AQ-5. During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. (Significant Unavoidable with Mitigation)

Subsequent development projects enabled under the Hub Plan would generate vehicle trips and other operational emissions, such as emissions from natural gas combustion, landscape maintenance activities, painting, and the use of consumer products. As discussed above, under Impact AQ-4, the air district established screening criteria to determine if operational emissions from projects would result in a cumulatively considerable net increase in criteria air pollutants. A project that exceeds the operational screening criteria may require a detailed air quality assessment to determine whether criteria air pollutant emissions would exceed significance thresholds. As noted above, the results of the quantitative analysis for one or more of the larger subsequent development projects that would be incentivized by the Hub Plan may exceed the criteria air pollutant significance thresholds, resulting in a significant impact.

As discussed under Impact AQ-1, the Hub Plan would further a number of *Clean Air Plan* Transportation Control Measures that would be expected to minimize vehicle trips. Additionally, the planning code contains requirements applicable to individual development projects that would serve to reduce vehicle trips, compared to conditions without such requirements. These include, but are not limited to, limits on permitted parking (section 151.1); pricing non-residential parking to discourage long-term parking (section 155(g)); provision of showers/lockers in new or renovated commercial projects (section 155.3) and bicycle parking in commercial and residential projects (sections 155.4 and 155.5); provision of onsite transportation brokerage services in larger

⁵⁵ California Environmental Protection Agency, Staff Report: Multimedia Evaluation of Renewable Diesel, May 2015, http://www.arb.ca.gov/fuels/multimedia/meetings/RenewableDieselStaffReport_Nov2013.pdf.

⁵⁶ Parcel size limits the amount of construction equipment and grading area at any one time.

office projects (section 163); provision of car-share parking (section 166); separating the cost of residential parking from the cost of a dwelling unit (section 167); payment of a Transportation Sustainability Fee (section 411A); and provision of onsite child care⁵⁷ in office and hotel projects (section 414). The City's TDM program (section 169) seeks to promote sustainable travel modes by requiring new development projects to incorporate design features, incentives, and tools that support transit, ride-sharing, walking, and bicycling for the residents, tenants, employees, and visitors of their projects. The City's *Environment Code* section 421 mandates that larger employers provide transit, transit passes, or financial incentives for transit use (section 421), which also has the potential to reduce vehicle travel. Additionally, the *San Francisco General Plan* and the City *Charter* contain numerous policy directives aimed at reducing auto trips, not the least of which is the City's Transit First Policy (section 16.102 of the *Charter*). However, it is not possible to precisely quantify the reduction in vehicle trips that these code provisions and policies, in combination, would attain. Furthermore, while the above requirements would serve to reduce vehicle trips and their emissions, they do not address other sources of operational criteria air pollutants that could be emitted by subsequent development projects such as criteria air pollutant emissions from consumer products, natural gas combustion, landscape maintenance and painting. Thus, because the Hub Plan would allow for development of projects that exceed the air district's screening criteria and could also exceed the significance thresholds for criteria air pollutants, in the absence of specific development proposals within the Hub Plan area (except the 30 Van Ness Avenue and 98 Franklin Street projects, which are analyzed separately under Impact AQ-6, below), subsequent development projects that would exceed the air district's screening criteria are assumed to have the potential to result in emissions that could exceed applicable significance thresholds.

In light of the above, the air quality impacts of subsequent individual projects are considered significant. Implementation of Mitigation Measures M-AQ-5a, M-AQ-5b, and M-AQ-5c, below, would reduce this impact, but the feasibility or effectiveness of these mitigation measures with respect to reducing criteria air pollutant emissions to levels below the significance thresholds is unknown at this time; therefore, the air quality impacts associated with subsequent development are considered *significant and unavoidable*.

For projects that would exceed the air district's operational criteria air pollutant thresholds (based on project-specific analysis of each subsequent development project), the following mitigation measures are applicable. It is further noted that the following mitigation measures do not apply to the 30 Van Ness Avenue Project or the 98 Franklin Street Project, which are analyzed separately under Impact AQ-6 (except that as discussed in Impact AQ-9, Mitigation Measure M-AQ-5c applies to the 98 Franklin Street Project).

⁵⁷ This provision may be satisfied by an in-lieu fee, which would not necessarily result in the same trip reduction benefit.

Mitigation Measures

- M-AQ-5a** *Educate Residential and Commercial Tenants Concerning Low-VOC Consumer Products.* Prior to receipt of any building permit and every five years thereafter, the project sponsor shall develop electronic correspondence to be distributed by email or posted onsite annually to tenants of the project that encourages the purchase of consumer products and paints that are better for the environment and generate less volatile organic compound (VOC) emissions. The correspondence shall encourage environmentally preferable purchasing and shall include contact information and links to SF Approved.⁵⁸
- M-AQ-5b** *Reduce Operational Emissions for Projects That Exceed Criteria Air Pollutant Thresholds.* Proposed projects that would exceed the criteria air pollutant thresholds shall implement the following additional measures, as applicable and feasible, to reduce operational criteria air pollutant emissions. Such measures may include, but are not limited to, the following:
- For any proposed refrigerated warehouses or large (greater than 20,000 square feet) grocery retailers, provide electrical hook-ups for diesel trucks with Transportation Refrigeration Units at the loading docks.
 - Use low- and super-compliant VOC architectural coatings in maintaining buildings. “Low VOC” refers to paints that meet the more stringent regulatory limits in South Coast Air Quality Management District rule 1113; however, many manufacturers have reformulated to levels well below these limits. These are referred to as “super-compliant” architectural coatings.
 - Other measures that become available and are shown to effectively reduce criteria air pollutant emissions onsite or offsite if emissions reductions are realized within the air basin. Measures to reduce emissions onsite are preferable to offsite emissions reductions.
- M-AQ-5c** *Best Available Control Technology for Projects with Diesel Generators and Fire Pumps.* All diesel generators and fire pumps shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with a California Air Resources Board Level 3 Verified Diesel Emissions Control Strategy. All diesel generators and fire pumps shall be fueled with renewable diesel, R99, if commercially available. Additional restrictions limiting the hours per year that generators may be tested may also be required, as determined necessary by the San Francisco Planning Department. For each new diesel backup generator or fire pump permit submitted for a project, including any associated generator pads, engine

⁵⁸ SF Approved (sfapproved.org) is administrated by the San Francisco Department of Environment, who identifies products and services that are safer and better for the environment (e.g., those that are listed as “Required” or “Suggested”).

and filter specifications shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator or fire pump from the San Francisco Department of Building Inspection. Once operational, all diesel backup generators and Verified Diesel Emissions Control Strategy shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators, fire pumps, and Level 3 Verified Diesel Emissions Control Strategy filters shall be required to be consistent with these emissions specifications. The operator of the facility at which the generator or fire pump is located shall maintain records of the testing schedule for each diesel backup generator and fire pump for the life of that diesel backup generator and fire pump and provide this information for review to the planning department within three months of requesting such information.

Significance after Mitigation

The above measures are required for future subsequent development projects in the Hub Plan area that would exceed the air district screening criteria or, after quantitative analysis, would exceed any of the air district's significance thresholds. However, without specific details on the size and extent of these projects, it is not possible to estimate emissions from subsequent development projects or the effectiveness or feasibility of the above mitigation measures. Additionally, a large portion of a project's operational emissions are generated by vehicle trips and although, as discussed above, the City has numerous requirements already in place to discourage vehicle trips, local government has no authority over vehicle emissions standards, which are established by federal and state law. Consequently, this impact is conservatively identified as *significant and unavoidable with mitigation*. It should be noted that the identification of this significant impact does not preclude the finding of future less-than-significant impacts for subsequent projects. For example, the quantitative analysis conducted for the 30 Van Ness Avenue and 98 Franklin Street projects (see Impact AQ-6, below) provide an indication of the likely criteria air pollutant impacts of subsequent development projects. The analysis conducted for the 30 Van Ness Avenue and 98 Franklin Street projects found that impacts from operational criteria air pollutant emissions would be less than significant; no mitigation is required for the criteria air pollutant emissions impact from those projects. However, without specific information on the scale and type of development, it cannot be stated with certainty that all subsequent development projects would result in less than significant criteria air pollutant impacts.

Impact AQ-6. During construction or operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status

under an applicable federal, state, or regional ambient air quality standard. (Less than Significant)

30 Van Ness Avenue Project

Construction

Construction of the proposed project at 30 Van Ness Avenue would generate emissions associated with both off-road construction equipment and on-road construction vehicles, including haul trucks, concrete deliveries, and vendor trips. Construction assumptions for the 30 Van Ness Avenue and 98 Franklin Street projects are summarized in the Analysis Assumptions subsection above.

Project-level construction criteria air pollutant emissions were calculated using methodologies consistent with CalEEMod[®] version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions. Detailed methodology and assumptions associated with emission calculations for the 30 Van Ness Avenue and 98 Franklin Street projects are provided in the Air Quality Technical Report.⁵⁹

Sources of construction emissions that were quantified include off-gassing from architectural coating, off-road equipment exhaust, and on-road vehicle exhaust. Emissions from architectural coating and paving off-gas emissions were based on the square footage of different land uses, as indicated by project sponsors for the 30 Van Ness Avenue Project (and 98 Franklin Street Project, which is discussed below).

Based on the project descriptions for both the 30 Van Ness Avenue and 98 Franklin Street projects, all parking land uses would be enclosed parking structures without any asphalt surface and hence, would not have emissions from paving off-gassing in either project. Emissions from off-road equipment were based on project-specific construction equipment lists and hours of operation, which were provided by project sponsors.

CalEEMod[®] estimated worker, vendor, and hauling vehicle trip generation rates for construction of the 30 Van Ness Avenue Project (and 98 Franklin Street Project, which is discussed below) are based on the proposed land uses, demolition amounts, and off haul amounts. The estimate of hauling truck trips for material off haul were based on the total off haul amount in cubic yards required for each project. The default trip lengths in CalEEMod[®] were used for worker, vendor, and haul truck trips. Criteria air pollutant emissions from each construction year for the project were added and then averaged over the number of work days in the construction period to determine average daily construction emissions.

⁵⁹ Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California*, July 10, 2019.

Table 3.D-7 shows the proposed 30 Van Ness Avenue Project's average daily emissions during construction. Pursuant to air district guidance, only exhaust-related PM₁₀ and PM_{2.5} emissions are presented with the project's construction emissions because the air district recommends that fugitive PM₁₀ and PM_{2.5} emissions be addressed through implementation of best management practices.

TABLE 3.D-7. 30 VAN NESS AVENUE PROJECT CONSTRUCTION CRITERIA AIR POLLUTANT EMISSIONS¹

Phase ²	Criteria Air Pollutant Emissions ³			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Off-road emissions	775	6,937	356	336
On-road emissions	1,513	19,150	1,319	630
Paving Off-Gas Emissions ^{4,5}	0	0	0	0
Architectural Coating ⁶	11,216	0	0	0
Total Emissions	13,504	26,088	1,675	966
Average Daily Emissions (lb/day)	12	23	1.5	0.84
Significance Threshold (lb/day)	54	54	82	54
Exceed Threshold?	No	No	No	No

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

¹ The modeled scenario reported here was estimated using default (i.e., fleet-average) emission factors for off-road equipment, without any mitigation measures.

² The length of construction refers to the approximate number of construction work days throughout project construction, without double-counting overlapping phases.

³ Criteria air pollutant emissions were calculated using methodology consistent with CalEEMod[®] and construction information supplied by the project sponsor.

⁴ Paving and architectural coating emissions were calculated using methodology consistent with CalEEMod[®].

⁵ Because the proposed parking structure is below grade, it would not require asphalt paving.

Projects that would result in emissions of criteria air pollutants less than the significance thresholds identified in **Table 3.D-7** would not violate an air quality standard or contribute substantially to an air quality violation.

As shown in **Table 3.D-7**, construction-generated emissions of ROG, NO_x, PM₁₀ exhaust, and PM_{2.5} exhaust for the 30 Van Ness Avenue Project would not exceed the applicable mass emission thresholds of significance. Therefore, construction period criteria air pollutant impacts from the proposed project at 30 Van Ness Avenue would be less than significant.

The air district recommends that all projects, regardless of the level of average daily emissions, implement best management practices to reduce construction-related fugitive dust emissions. The Construction Dust Control Ordinance requires that all site preparation work, demolition, or other construction activities in San Francisco that have the potential to create dust or to expose or

disturb more than 10 cubic yards or 500 square feet of soil comply with specific dust control measures whether or not the activity requires a permit from DBI. For projects over one half-acre, such as the proposed project at 30 Van Ness Avenue, the Dust Control Ordinance requires that the project sponsor submit a Dust Control Plan for approval by the San Francisco Department of Public Health. The Department of Building Inspection will not issue a building permit without written notification from the Director of Public Health that the applicant has a site-specific Dust Control Plan, unless the director waives the requirement. Additional requirements of the Dust Control Ordinance are detailed above in Impact AQ-4.

The project sponsor would be required to designate an individual to monitor compliance with the dust control requirements. San Francisco ordinance 175-91 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of San Francisco, unless permission is obtained from the San Francisco Public Utilities Commission. Non-potable water must be used for soil compaction and dust control activities during project construction and demolition. The San Francisco Public Utilities Commission operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities at no charge. Because the proposed project would be required to comply with the regulations and procedures set forth by the Dust Control Ordinance, potential dust-related air quality impacts from the proposed project at 30 Van Ness Avenue would be reduced to a less-than-significant level.

In summary, construction of the proposed project at 30 Van Ness Avenue would not violate or contribute substantially to an existing or projected air quality violation. Therefore, construction-related criteria air pollutant impacts from the proposed project would be *less than significant*, and no mitigation is necessary.

Operations

Operation of the proposed project at 30 Van Ness Avenue would have the potential to create air quality impacts, which would be associated primarily with mobile, area, stationary, and energy sources. Motor vehicle traffic would include daily resident-access, visitor, delivery truck, and employee trips. Area sources would include landscaping equipment, architectural coatings and the associated off-gassing during reapplication, and use of consumer products (e.g., solvents, cleaning supplies, cosmetics, toiletries). Stationary sources include two proposed emergency diesel generators. Energy sources include natural gas combustion for space and water heating. Each of these sources was taken into account in calculating the proposed project's long-term operational emissions. Operational emissions were quantified for build-out year 2024 and are discussed below.

Operational assumptions for the 30 Van Ness Avenue Project are summarized in the Analysis Assumptions subsection above. Detailed methodology and assumptions associated with emission estimates are provided in the Air Quality Technical Report prepared in support of this EIR. Project-level operational criteria air pollutant emissions were calculated using methodology

consistent with CalEEMod version 2016.3.2. In order to determine net new criteria air pollutant emissions that would result from implementation of the project, it is necessary to also quantify existing emissions occurring on the project site. The proposed project's 180,330 square feet (sf) of existing office uses would be replaced with up to approximately 826,000 sf of new uses, including up to 21,000 sf of retail, up to 350,000 sf of general office, and up to 520,000 sf of residential uses. The emissions from the existing land uses were also quantified in CalEEMod and subtracted from the proposed project emissions to determine net new criteria air pollutant emissions following project completion.

The average daily and total annual increases in emissions associated with operation of the proposed project at project build-out is shown in **Table 3.D-8** for ROG (precursor of ozone), NO_x (precursor of ozone), PM₁₀, and PM_{2.5} with results showing the contribution to each pollutant by emissions source.

As shown in **Table 3.D-8**, below, the average daily net emissions at full buildout (after taking into account the effects of removing the existing office uses on the project site) would be 20 lbs/day for ROG, 8.2 lbs/day for NO_x, 20 lbs/day for PM₁₀, and 5.5 for PM_{2.5} lbs/day, which are below the respective air district significance thresholds of 54 lbs/day for ROG, NO_x, and PM_{2.5}, and 82 lbs/day for PM₁₀. The maximum net annual operational emissions at full buildout (after taking into account the effects of removing the existing office uses on the project site) would be 3.7 tons/year for ROG, 1.5 tons/year for NO_x, 3.6 tons/year for PM₁₀, and 1.0 tons/year for PM_{2.5}, which are also below the respective air district significance thresholds of 10 tons/year for ROG, NO_x, and PM_{2.5}, and 15 tons/year for PM₁₀.

TABLE 3.D-8. 30 VAN NESS AVENUE PROJECT OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS

Modeled Year	Emissions Source Category	Average Daily Operational Emissions ¹ [lb/day]			
		ROG	NO _x	PM ₁₀	PM _{2.5}
Existing 2018 Baseline ²	Area ^{5,6}	4.4	1.1E-04	5.5E-05	5.5E-05
	Energy ⁷	0.10	0.94	0.071	0.071
	Mobile ⁸	7.2	13	10	3.0
	Generator ⁹	--	--	--	--
	Total	12	14	10	3.0
2024 Full Project Buildout ³	Area ^{5,6}	23	0.29	0.14	0.14
	Energy ⁷	0.36	3.2	0.25	0.25
	Mobile ⁸	9.0	17	30	8.1
	Generator ⁹	0.0011	2.2	0.073	0.073
	Total	32	22	30	8.6
Net Project Emissions ⁴	Area ^{5,6}	18	0.29	0.14	0.14
	Energy ⁷	0.26	2.3	0.18	0.18
	Mobile ⁸	1.7	3.4	19	5.2
	Generator ⁹	0.0011	2.2	0.073	0.073
	Total	20	8.2	20	5.5

TABLE 3.D-8. 30 VAN NESS AVENUE PROJECT OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS

Modeled Year	Emissions Source Category	Average Daily Operational Emissions ¹ [lb/day]			
		ROG	NO _x	PM ₁₀	PM _{2.5}
Significance Threshold (lb/day)		54	54	82	54
Exceed Threshold?		No	No	No	No
		Annual Operational Emissions [ton/year] ¹⁰			
		ROG	NO _x	PM ₁₀	PM _{2.5}
Existing 2018 Baseline ²		2.1	2.6	1.9	0.56
2024 Full Project Buildout ³		5.8	4.1	5.5	1.6
Net Project Emissions ⁴		3.7	1.5	3.6	1.0
Significance Threshold (lb/day)		10	10	15	10
Exceed Threshold?		No	No	No	No

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

1. Operational emissions from area, energy, and mobile sources were estimated with CalEEMod® version 2016.3.2.
2. Operational emissions from the baseline scenario (existing conditions) were estimated using CalEEMod® default emission factors for 2018.
3. Full project operation was assumed to occur immediately following construction. The emissions were assumed to occur over a full year of operation.
4. The net project emissions were estimated by subtracting the baseline existing emissions from the total project buildout emissions.
5. For consumer products, ROG emissions were calculated based on the average emission factor for the City of San Francisco. San Francisco’s ROG emissions from consumer products is projected to be 5.67 tons per day in 2020 (Ref: <https://www.arb.ca.gov/app/emsmv/emssumcat.php>). San Francisco's building square footage was 539,022,396 square feet based on a survey in 2007 (Ref: DataSF Land Use shapefiles). Therefore, the emission factor was calculated as follows: (5.67 tons/day * 2000 lbs/ton)/539,022,396 sq. ft. = 2.10 x 10⁻⁵ lbs/(sq. ft.-day).
6. Per air district Rule 6-3-306, no new building construction can include wood-burning devices. Based on communication with project sponsor, the project would not include any natural gas hearths.
7. Baseline energy consumption was assumed to adhere to Title 24 2016.
8. CalEEMod® default vehicle trip generation rate and length were used in generating operational mobile emissions. Emission factors were updated to reflect emissions factors from EMFAC2017 for 2024 (build out year).
9. The two 1,500 kW generators were modeled using default engine emission factors from CalEEMod (statewide average) and assuming 50 hours of year of non-emergency testing. Below is the calculation methodology:

$$E = EF * HP * Hr$$

Where:

- E = generator engine emissions
- HP = generator horsepower
- EF = compression-ignition engine emission factor
- Hr = generator hours

Engine emission factors for NO_x, PM₁₀, and PM_{2.5} (assumed all engines are diesel fueled, and that all PM₁₀ is diesel particulate matter) based on CalEEMod® version 2016.3.2. default emission factors for >750-hp engines from Table 12.1. in Appendix D of the User’s Guide. Engines are assumed to be at maximum load during testing. Average daily generator emissions are annualized by dividing fifty hours of annual use by 365 days per year.

¹⁰. Annual operational emissions are estimated by multiplying average daily emissions by 365 days per year.

Because the 30 Van Ness Avenue Project's emissions would be below the operational significance criteria, the project would have a *less-than-significant impact* on regional emissions of ozone precursors (ROG and NO_x), PM₁₀, and PM_{2.5}; no mitigation measure is required.

98 Franklin Street Project

Construction

Construction of the proposed project at 98 Franklin Street would generate emissions associated with both off-road construction equipment and on-road construction vehicles, including haul trucks, concrete deliveries, and vendor trips. Construction emissions were quantified using methodologies consistent with CalEEMod version 2016.3.2. Construction assumptions for the 98 Franklin Street Project are summarized in the Analysis Assumptions subsection above and detailed methodology and assumptions are provided in the Air Quality Technical Report prepared in support of this EIR.

Table 3.D-9 shows the proposed project's average daily emissions during construction. As noted for the 30 Van Ness Avenue analysis above, pursuant to air district guidance, only exhaust-related PM₁₀ and PM_{2.5} emissions are presented with the project's construction emissions because the air district recommends that fugitive PM₁₀ and PM_{2.5} emissions be addressed through implementation of best management practices. Projects that would result in emissions of criteria air pollutants less than the significance thresholds identified in **Table 3.D-9** would not result in a cumulatively considerable net increase in criteria air pollutant emissions.

As shown in **Table 3.D-9**, construction-generated emissions from the 98 Franklin Street Project would be 12 lbs/day for ROG, 8.6 lbs/day for NO_x, 0.67 lbs/day for PM₁₀, and 0.39 lbs/day for PM_{2.5}, which are below the respective significance thresholds of 54 lbs/day for ROG, NO_x, and PM_{2.5}, and 82 lbs/day for PM₁₀. Therefore, construction period criteria air pollutant impacts from the proposed project at 98 Franklin Street would be less than significant.

TABLE 3.D-9. 98 FRANKLIN STREET PROJECT CONSTRUCTION CRITERIA AIR POLLUTANT EMISSIONS¹

Phase	Criteria Air Pollutant Emissions ²			
	ROG	NO _x	PM ₁₀	PM _{2.5}
Off-road emissions	264	2,387	100	95
On-road emissions	345	2,488	280	127
Paving Off-Gas Emissions ³	0	0	0	0
Architectural Coating ⁴	6,299	0	0	0
Total Emissions	6,907	4,874	381	222
Length of Construction (construction days) ⁵	569			
Average Daily Emissions (lb/day)	12	8.6	0.67	0.39
Significance Threshold (lb/day)	54	54	82	54
Exceed Threshold?	No	No	No	No

TABLE 3.D-9. 98 FRANKLIN STREET PROJECT CONSTRUCTION CRITERIA AIR POLLUTANT EMISSIONS¹

Source: Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California*, July 10, 2019.

Notes:

- ¹ The modeled scenario reported here was estimated using default (i.e., fleet-average) emission factors for off-road equipment, without any mitigation measures.
- ² Criteria air pollutant emissions were calculated using methodology consistent with CalEEMod[®] and construction information supplied by the project sponsor.
- ³ Paving and architectural coating emissions were calculated using methodology consistent with CalEEMod[®].
- ⁴ Because the proposed parking structures are below grade, they would not require asphalt paving.
- ⁵ The length of construction refers to the approximate number of construction work days throughout the project construction, without double-counting overlapping phases.

The air district recommends that all projects, regardless of the level of average daily emissions, implement best management practices to reduce construction-related fugitive dust emissions. The 98 Franklin Street Project would be required to comply with the City's Construction Dust Control Ordinance, as described above on page 3.D-24 and in more detail on page 3.D-59. All of the requirements noted in that discussion for the 30 Van Ness Avenue Project would also be required for the 98 Franklin Street Project.

In summary, construction of the proposed project at 98 Franklin Street would not violate or contribute substantially to an existing or projected air quality violation. Therefore, construction-related criteria air pollutant impacts from the proposed project would be *less than significant*, and no mitigation is necessary.

Operations

Operation of the proposed project at 98 Franklin Street would have the potential to create air quality impacts, which would be associated primarily with mobile, area, stationary, and energy sources. Motor vehicle traffic would include daily resident-access, visitor, delivery truck, and employee and student trips. Area sources would include landscaping equipment, architectural coatings and the associated off-gassing during reapplication, and use of consumer products (e.g., solvents, cleaning supplies, cosmetics, toiletries). Stationary sources include a proposed emergency diesel generator. Energy sources include natural gas combustion for space and water heating. Each of these sources was taken into account in calculating the proposed project's long-term operational emissions. Operational emissions were quantified for build-out year 2023 and are discussed below.

Project-level operational criteria air pollutant emissions were calculated using methodology consistent with CalEEMod version 2016.3.2. Operational assumptions for the 98 Franklin Street Project are summarized in the Analysis Assumptions subsection above. Detailed methodology and assumptions associated with emission estimates are provided in the Air Quality Technical

Report prepared in support of this EIR.⁶⁰ Since the 98 Franklin Street project site currently contains parking lot uses, no emissions reductions from these existing land uses were accounted for in determining net new emissions from the proposed project.

The average daily and total annual increases in emissions associated with operation of the proposed 98 Franklin Street Project at project build-out is shown in **Table 3.D-10** for ROG (precursor of ozone), NO_x (precursor of ozone), PM₁₀, and PM_{2.5} with results showing the contribution to each pollutant by emissions source.

As shown in **Table 3.D-10**, the average daily net emissions at full buildout would be 15 lbs/day for ROG, 10 lbs/day for NO_x, 11 lbs/day for PM₁₀, and 3 lbs/day for PM_{2.5}, which are below the respective significance thresholds of 54 lbs/day for ROG, NO_x, and PM_{2.5}, and 82 lbs/day for PM₁₀. The maximum net annual operational emissions at full buildout would be 2.8 tons/year for ROG, 1.8 tons/year for NO_x, 2.0 tons/year for PM₁₀, and 0.57 tons/year for PM_{2.5}, which are also below the respective significance thresholds of 10 tons/year for ROG, NO_x, and PM_{2.5}, and 15 tons/year for PM₁₀.

Because the 98 Franklin Street Project's emissions would be below the operational significance criteria, the 98 Franklin Street Project would have a *less-than-significant impact* on regional emissions of ozone precursors (ROG and NO_x), PM₁₀, and PM_{2.5}.

TABLE 3.D-10. 98 FRANKLIN STREET PROJECT OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS

Modeled Year	Emissions Source Category	Average Daily Operational Emissions ¹ [lb/day]			
		ROG	NO _x	PM ₁₀	PM _{2.5}
2023 Full Project Buildout ²	Area ^{3,4}	12	0.16	0.078	0.078
	Energy ⁵	0.13	1.1	0.089	0.089
	Mobile ⁶	3.3	6.1	11	2.9
	Generator ⁷	0.0014	2.8	0.091	0.091
	Total	15	10	11	3
	Significance Threshold (lb/day)	54	54	82	54
	Exceed Threshold?	No	No	No	No
		Maximum Annual Operational Emissions [ton/year] ¹⁰			
		ROG	NO _x	PM ₁₀	PM _{2.5}
	2024 Full Project Buildout ²	2.8	1.8	2.0	0.57
	Significance Threshold (lb/day)	10	10	15	10
	Exceed Threshold?	No	No	No	No

⁶⁰ Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California*, July 10, 2019.

TABLE 3.D-10. 98 FRANKLIN STREET PROJECT OPERATIONAL CRITERIA AIR POLLUTANT EMISSIONS

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

- ¹ Operational emissions from area, energy, and mobile sources were estimated with CalEEMod[®] version 2016.3.2.
- ² Full project operation was assumed to occur immediately following construction. The emissions were assumed to occur over a full year of operation.
- ³ For consumer products, ROG emissions were calculated based on the average emission factor for the City of San Francisco. San Francisco's ROG emissions from consumer products is projected to be 5.67 tons per day in 2020 (Ref: <https://www.arb.ca.gov/app/emsinv/emssumcat.php>). San Francisco's building square footage was 539,022,396 square feet based on a survey in 2007 (Ref: DataSF Land Use shapefiles). Therefore, the emission factor was calculated as follows:
(5.67 tons/day * 2000 lbs/ton)/539,022,396 sq. ft. = 2.10 x 10⁻⁵ lbs/(sq. ft.-day).
- ⁴ Per air district Rule 6-3-306, no new building construction can include wood-burning devices. Based on communication with project sponsor, the project would not include any natural gas hearths.
- ⁵ Energy consumption was assumed to adhere to Title 24 2016.
- ⁶ CalEEMod[®] default vehicle trip generation rate and length were used in generating operational mobile emissions. Emission factors were updated to reflect emissions factors from EMFAC2017 for year 2024 (build out year).
- ⁷ For the unmitigated scenario, which is presented above, one 1,500 kW generator was assumed using default engine emission factors from CalEEMod (statewide average) and 50 hours of year of non-emergency testing. Below is the calculation methodology:

$$E = EF * HP * Hr$$

Where:

- E = generator engine emissions
- EF = compression-ignition engine emission factor
- HP = generator horsepower
- Hr = generator hours

Engine emission factors for NO_x, PM₁₀, and PM_{2.5} (assumed all engines are diesel fueled, and that all PM₁₀ is diesel particulate matter) are based on CalEEMod[®] version 2016.3.2. default emission factors for >750-hp engines from Table 12.1. in Appendix D of the User's Guide. Engines are assumed to be at maximum load during testing.

Average daily generator emissions are annualized by dividing 50 hours of annual use by 365 days per year.

⁹ Annual operational emissions are estimated by multiplying average daily emissions by 365 days per year.

COMMUNITY RISK AND HAZARD IMPACTS

Impact AQ-7. The Hub Plan would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. (Significant and Unavoidable with Mitigation)

The Hub Plan and Subsequent Development Projects

At present, and as stated in the Environmental Setting, above, the vast majority of the Hub Plan area is located within the City's identified APEZ, an area where air pollutant levels exceed health protective standards. In addition, the Hub Plan would increase development potential within the Hub Plan area. Subsequent development enabled by the Hub Plan would generate vehicle traffic and require the installation of stationary sources, both of which would emit diesel particulate matter and other TACs. The streetscape and street network improvements would also affect the

distribution of some vehicle trips and, therefore, the location of traffic emissions. Therefore, the Hub Plan could affect the geographic extent and severity of the APEZ.

A health risk assessment was conducted to estimate the incremental change in cancer risks and localized PM_{2.5} concentrations that would result from the proposed Hub Plan, including an evaluation of operational impacts from the increase in traffic in the Hub Plan area as well as from potential generators for the sites that would be rezoned to allow for 75 feet or taller buildings, as these buildings typically require an emergency backup generator to meet life safety requirements under the building and fire codes. The Hub Plan currently proposes re-zoning of 11 individual sites including the sites for the 30 Van Ness Avenue Project and 98 Franklin Street Project to heights above 75 feet. The air quality analysis for the Hub Plan and proposed individual development projects at 30 Van Ness Avenue and 98 Franklin Street, discussed below, includes construction and operational impacts associated with each project separately. However, because the Hub Plan would rezone the allowable heights for the 30 Van Ness Avenue and 98 Franklin Street project sites, results of the project-level analyses for the 30 Van Ness Avenue and 98 Franklin Street projects (construction and operations) are also included in the analysis of the Hub Plan's impact.

In general, for the sources of emissions that were modeled, the assumptions and scenarios used in the modeling were those that would have resulted in maximum impacts from the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street.⁶¹ Emissions from these sources were quantified to determine whether Hub Plan-level emissions would exceed the applicable significance thresholds (PM_{2.5} concentrations of 0.2 µg/m³ and/or cancer risk of 7.0 per 1 million persons exposed).

Construction emission from subsequent development projects are not included in the health risk analysis because a construction health risk assessment is based on project-specific construction

⁶¹ In order to estimate the air quality impacts of traffic emissions resulting from the Hub Plan, scenarios that result in the maximum estimated impacts of the Hub Plan in both baseline year (2020) and cumulative year (2040) were chosen for the health risk modeling, as discussed in section 2.1.1.1 of the air quality technical report. In the Baseline (2020) scenarios, traffic impacts from the Hub Plan (Hub Plan 2020 Traffic) were estimated as the difference between the "Baseline 2020 Plus Hub Plan and Civic Center Land Use" (which includes all approved, funded, and constructed transportation projects as well as traffic from population and growth projections for 2020, assuming implementation of the Hub Plan and Civic Center Public Realm Plan land use changes, not including streetscape and street network improvements) and "Baseline 2020 (No Project)" traffic scenarios. Streetscape and street network improvements proposed by the Hub Plan are not included in this analysis because initial modeling results indicated that, with inclusion of the streetscape and street network improvements proposed under the Hub Plan, overall traffic levels would be lower resulting in less emissions and lower overall health risks. Therefore, by basing the analysis on the scenarios discussed above, the analysis is a worst-case comparison of traffic-related risks and PM_{2.5} concentrations as a result of the Hub Plan. Similarly, the traffic analysis of the Hub Plan's impact in the cumulative year (2040) is based on the difference between the "Cumulative 2040 Plus Hub Plan and Civic Center Land Use" and the "Cumulative 2040 No Project" traffic scenarios. The difference between these two scenarios does not account for Hub streetscape and street network changes, likewise yielding a worst-case assessment of emissions and health risks that could result from implementation of the Hub Plan. For this reason, the emissions and health impacts of the Hub Plan are likely to be lower than presented here.

information, which is unavailable at this time. However, it is expected that emissions from subsequent development projects, and consequent health risks, would be similar to those discussed for 30 Van Ness Avenue and 98 Franklin Street projects, below. Moreover, the analysis presented in this impact statement does not include construction emissions from streetscape and street network improvement projects because health risk impacts from streetscape and street network improvements are addressed separately under Impact AQ-8.

Emissions from all of the above sources were quantified (Hub Plan-level traffic, Hub Plan-level generator, and project-level construction emissions from the 30 Van Ness Avenue and 98 Franklin Street projects). Emission factors associated with traffic-related emissions were estimated using the mobile source emission inventory EMFAC2017. For each site rezoned to a height of 75 feet or greater, the analysis assumes one 2,000 kW generator is needed for life safety requirements. The generators are assumed to operate for 50 hours per year for required testing, consistent with the testing limits in air district permits. Project specific information on the number and size of generators were used for the 30 Van Ness Avenue and 98 Franklin Street project analyses.

Emissions from each of these sources were then input into the AERMOD dispersion model to determine concentrations of diesel particulate matter and other TACs for each receptor point. Receptors were modeled on a 20- by 20-meter receptor grid, consistent with the citywide health risk modeling conducted for the APEZ. AERMOD requires a number of modeling inputs including source parameters, meteorological parameters, topography information and receptor parameters. Each of these parameters are detailed in the Air Quality Technical Report prepared for this EIR.

After conducting the dispersion modeling, the cancer risk from diesel particulate matter and other toxic air contaminants were estimated for each receptor point using Office of Environmental Health Hazard Assessment (OEHHA) health risk methodology.

As part of this health risk assessment, an update of the APEZ modeling was conducted to determine the current existing health risk conditions. The updated model is based on the latest emissions sources information available for permitted stationary sources, maritime, and rail source emissions, as well as updated vehicle traffic emissions. The updated health risk analysis also incorporates the latest OEHHA methodology. The methodology employed in the dispersion modeling, as well as the scenarios that were modeled, are further documented in the Air Quality Technical Report prepared for this EIR.⁶²

Health Risk Model Results

The Hub Plan and subsequent development projects, including projects at 30 Van Ness Avenue and 98 Franklin Street, would emit TACs and PM_{2.5} as a result of vehicle trips, stationary sources, and construction activities. The Baseline (2020) + Hub Plan scenario evaluated the impact from

⁶² Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California*, July 10, 2019.

the Hub Plan in conjunction with the anticipated background conditions (which were evaluated in the Baseline [2020] No Hub Plan Scenario).

The maximally exposed individual sensitive receptor (MEISR) was determined by identifying the sensitive receptor with the maximum impact from the Hub Plan's emissions sources. The health risk from the Hub Plan at all other sensitive receptor locations would be less than that reported for the MEISR. Additionally, the impacts from the Hub Plan at each receptor were added to the background Baseline (2020) No Hub Plan Scenario impacts in order to determine the total health impact at each receptor.

Results of the modeling were used to determine whether the proposed Hub Plan as well as individual projects at 30 Van Ness Avenue and 98 Franklin Street would exceed thresholds for total excess lifetime cancer risk and/or PM_{2.5} concentrations at the Hub Plan MEISR. As shown in **Table 3.D-11** and **Table 3.D-12**, p. 3.D-69, cancer risk (under the unmitigated scenario⁶³) from all Hub Plan sources would increase by as much as 225 in 1 million and the PM_{2.5} concentration would increase by up to 0.67 µg/m³ at individual receptor points. These levels would exceed the significance thresholds an increased cancer risk of 7.0 per 1 million people exposed and PM_{2.5} concentrations of 0.2 µg/m³ identified in **Table 3.D-11** and **Table 3.D-12**, p. 3.D-69. Therefore, implementation of the Hub Plan and subsequent projects (inclusive of individual development projects at 30 Van Ness Avenue and 98 Franklin Street) would result in *significant impacts* related to exposure of sensitive receptors to substantial levels of toxic air contaminants. Again, the modeling in **Table 3.D-11** and **Table 3.D-12**, p. 3.D-69, does not account for emissions from implementation of the streetscape and street network improvements, which are analyzed separately under Impact AQ-8, below, and they do not account for emissions from construction of subsequent development projects (other than 30 Van Ness Avenue and 98 Franklin Street projects) as those emissions are based on detailed project-specific information which is not known at this time. Although construction emissions, and consequent health risks, from subsequent development projects are unknown, they would likely be similar to that modeled for the 30 Van Ness Avenue and 98 Franklin Street projects.

With respect to mobile-source emissions, the City's requirement for subsequent projects to prepare TDM plans would reduce vehicle emissions by reducing the number of vehicle trips. For subsequent projects within the Hub Plan area, TDM plans would require a project TDM coordinator to be identified; transportation and trip planning information to be provided to building occupants; and components that encourage bicycling, car sharing, and transit; reduce vehicular parking; allow City access for data collection; and monitor the TDM program. In addition, the planning code contains requirements applicable to individual development projects that would serve to reduce

⁶³ The unmitigated scenario evaluated health risks associated with operation of Hub Plan-level generators without any controls on construction equipment for the 30 Van Ness Avenue and 98 Franklin Street projects or emergency diesel generators. Diesel-powered construction equipment were assumed to operate with fleet-average emission factors consistent with default assumptions in the California Emissions Estimator Model version 2016.3.2 (CalEEMod®).

vehicle trips, compared to conditions without such requirements. Section 421 of the City's environment code mandates that larger employers provide transit, transit passes, or financial incentives for transit use (section 421), which also has the potential to reduce vehicle travel. Additionally, the San Francisco General Plan and the City Charter contain numerous policy directives aimed at reducing auto trips, not the least of which is the City's Transit First Policy (section 16.102 of the charter). However, the efficacy of these requirements and mitigation measures to reduce tailpipe emissions cannot be quantified because the degree to which these measures would reduce the number of vehicle trips, as well as the resulting tailpipe emissions, are uncertain. Furthermore, vehicle emissions are regulated at the state and federal level. Nevertheless, Mitigation Measure M-AQ-7a has been included and requires the City to explore additional feasible measures to improve air quality within the Hub Plan area.

TABLE 3.D-11. BASELINE (2020) + HUB PLAN CANCER RISK AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	Cancer Risk (per 1 million persons exposed)		
	Unmitigated	Mitigated	
Hub Plan Cancer Risk Contributions			
Construction of Individual Development Projects under Hub Plan	30 Van Ness Avenue Project	12	0.26
	98 Franklin Street Project	21	1.7
Generators ¹		182	24
Hub Plan 2020 Traffic		11	11
Total Project or Hub Plan Contribution		225	37
Significance threshold for Hub Plan cancer risk contribution within an APEZ		7	7
Significant?		Yes	Yes
Baseline (2020) No Hub Plan Cancer Risk Contributions			
Baseline (2020) No Hub Plan Traffic		226	226
Rail Sources		0.85	0.85
Maritime Sources		35	35
Existing Stationary Sources		4.7	4.7
Total Cancer Risk at MEISR		492	303

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

¹ Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.

TABLE 3.D-12. BASELINE (2020) + HUB PLAN PM_{2.5} CONCENTRATION AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category		PM _{2.5} Concentration (µg/m ³)	
		Unmitigated	Mitigated
Hub Plan Contributions			
Construction of Individual Development Projects under Hub Plan	30 Van Ness Avenue Project	0.59	0.0012
	98 Franklin Street Project	0.010	0.0094
Generators ¹		0.0077	0.032
Hub Plan 2020 Traffic		0.055	0.076
Total Project or Hub Plan Contribution		0.67	0.12
Significance threshold for Hub Plan PM _{2.5} contribution within an APEZ		0.2 µg/m ³	0.2 µg/m ³
Significant?		Yes	Yes
Baseline (2020) No Hub Plan Cancer Risk Contributions			
Baseline (2020) No Hub Plan Traffic		1.6	1.5
Rail Sources		0.0015	0.0016
Maritime Sources		0.048	0.046
Existing Stationary Sources		0.049	0.044
Background Concentration ³		7.8	7.8
Total PM _{2.5} Concentration at MEISR		10.2	9.5

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

¹ Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.

² The location of the MEISR changes between the unmitigated and mitigated scenario. This means that after mitigation is applied the location where the Hub Plan has the greatest impact changes and the contribution of existing and Hub Plan-level PM_{2.5} concentrations also change. For example, the PM_{2.5} concentration from generators for the mitigated scenario is higher than the unmitigated scenario not because the impact is greater, but because once mitigation is applied, the location of the MEISR changes and the contribution of PM_{2.5} concentrations from the generator is greater at this location. Additionally, the contribution from baseline sources also changes as the location of the MEISR changes between the mitigated and unmitigated analyses.

³ The background PM_{2.5} concentration is the average annual monitored PM_{2.5} concentration from the air district's 16th and Arkansas Street monitoring station.

Hub Plan-Generated Mobile Source Emissions

Stationary and Non-Permitted Sources

New stationary sources in the Hub Plan area would result in potential health risks to existing and new sensitive receptors, which would be expected to consist mostly of persons living in residential projects within the Hub Plan area. Among these sources would be diesel-powered emergency generators, which are required to be installed in taller buildings (as noted above,

generally those with occupiable floors above 75 feet in height, in accordance with section 2702.2.15 of the San Francisco Building Code [2013], adopted from the California Building Code without modification). Operation of these generators would expose nearby sensitive receptors to elevated concentrations of TACs, including diesel particulate matter and PM_{2.5}.

Most new stationary sources, including backup generators, would require a permit from the air district, and air district permit requirements would generally reduce emissions from such sources. For example, all stationary engines greater than 50 horsepower require an air district permit and diesel engines must comply with a state-mandated TAC control measure for such engines, which is administered by the air district. In general, the air district will not issue a permit for a stationary diesel engine that would result in a cancer risk greater than 10 in 1 million for the maximally exposed receptor. However, within the APEZ, these additional emissions of TACs would be a significant impact, given that these areas already have poorer air quality and existing sensitive receptors have an increased health vulnerability from air pollution. Mitigation Measures M-AQ-5c, discussed above under Impact AQ-5, and Mitigation Measures M-AQ-7b and M-AQ-7c, discussed below, would be required and would reduce diesel particulate matter and other TAC emissions and sensitive receptor exposure to those emissions. Generators with Tier 4 engines emit 75 to 85 percent fewer DPM and PM_{2.5} emissions than Tier 2 engines, while emissions of diesel particulate matter can be reduced by 89 to 94 percent with Level 3 VDECS compared to equipment with engines meeting no emission standards. Furthermore, renewable diesel R100 has the potential to reduce particulate matter emissions by about 30 percent and NO_x emissions by 10 percent.⁶⁴

Subsequent Development Projects Construction Emissions

Given the lack of project-specific information regarding construction phasing, equipment, and number of employees, construction emissions from subsequent projects were not modeled as part of this analysis; however, construction of subsequent projects could result in emissions similar to those discussed under Impact AQ-9 for the 30 Van Ness Avenue and 98 Franklin Street projects, which represent the types of projects that would be enabled by the Hub Plan. As such, these impacts could be significant. Implementation of Mitigation Measure M-AQ-4b, Requirement for Construction Emissions Minimization Plan for Projects That Would Not Meet Screening Levels or Would Exceed Criteria Air Pollutant Significance Thresholds or Required in Impact AQ-7, which would be triggered through Mitigation Measure M-AQ-7d, Implementation of Mitigation Measure M-AQ-4b to Future Construction within the Existing or Future Air Pollution Exposure Zone, discussed below, would ensure that construction of subsequent projects within the APEZ or within newly added parcels that meet the APEZ criteria, as shown in **Figure 3.D-2**, would be reduced to less than significant.

⁶⁴ California Environmental Protection Agency, Staff Report: Multimedia Evaluation of Renewable Diesel, May 2015. Available at http://www.arb.ca.gov/fuels/multimedia/meetings/RenewableDieselStaffReport_Nov2013.pdf.

Exposure of Sensitive Receptors

As noted in the Environmental Setting, the City's APEZ is established based on emissions from all known sources of TACs and PM_{2.5}, including both mobile and stationary sources and, as discussed in the Regulatory Framework, *San Francisco Health Code* article 38 protects new sensitive land uses from sources of air pollution by requiring that within the APEZ, these uses incorporate enhanced ventilation systems, including MERV 13 filtration, into building design and construction. MERV 13 air filtration is capable of removing 80 percent of particulate matter, thereby reducing an individual's exposure to air pollution. For projects proposing new sensitive land uses, because most of the Hub Plan area is within the APEZ, most new sensitive use development projects would be required to install the enhanced filtration required by *Health Code* article 38.

The results of the assessment indicate that the geographic extent of the APEZ would be expanded with implementation of the Hub Plan to encompass additional parcels in areas surrounding the current APEZ. **Figure 3.D-2**, p. 3.D-71, depicts the existing APEZ map pursuant to Health Code article 38. Overlaid on this figure are parcels within the Hub Plan area that would meet APEZ criteria with the implementation of the Hub Plan and individual projects at 30 Van Ness Avenue and 98 Franklin Street.

The Hub Plan would result in a significant health risk impact because it would exceed cancer risk and PM_{2.5} concentration thresholds of seven in 1 million and 0.2 µg/m³, respectively. As discussed in the Regulatory Framework, article 38 requires the planning and public health departments to periodically update the analysis and mapping identifying the APEZ, at least every five years. Mitigation Measure M-AQ-7e, Implementation of Mitigation Measures M-AQ-4b and M-AQ-5c for Projects within the Existing or Future Air Pollutant Exposure Zone, below, would require the planning and public health departments to update the APEZ in accordance with updates to dispersion modeling conducted for the Hub Plan.

Mitigation Measures

The following mitigation measures would be required for subsequent development projects proposed in the Hub Plan area, with the exception of individual development projects at 30 Van Ness Avenue Project or the 98 Franklin Street Project (unless otherwise noted), which are analyzed separately under Impact AQ-9.

M-AQ-5c ***Best Available Control Technology for Projects with Diesel Generators and Fire Pumps.*** (This mitigation measure is provided in full under Impact AQ-5 and is applicable to the 98 Franklin Street Project.)

M-AQ-7a *Additional Air Quality Improvement Strategies to Reduce Hub Plan-Generated Emissions and Population Exposure.* The planning department, in cooperation with other interested agencies or organizations, shall consider additional actions for the Hub Plan area with the goal of reducing Hub Plan-generated emissions and population exposure including, but not limited to:

- Collection of air quality monitoring data that could provide decision makers with information to identify specific areas of the Hub Plan where changes in air quality have occurred and focus air quality improvements on these areas;
- Additional measures that could be incorporated into the City's Transportation Demand Management program with the goal of further reducing vehicle trips;
- Incentives for replacement or upgrade of existing emissions sources;
- Other measures to reduce air pollutant exposure, such as the distribution of portable air cleaning devices; and
- Public education regarding reducing air pollutant emissions and their health effects.

The department shall develop a strategy to explore the feasibility of additional air quality improvements within four years of Hub Plan adoption.

M-AQ-7b *Air Quality Analysis That Considers the Siting of Uses That Emit Particulate Matter (PM_{2.5}), Diesel Particulate Matter, or Other Toxic Air Contaminants.* To minimize potential exposure of sensitive receptors to diesel particulate matter or substantial levels of toxic air contaminants as part of everyday operations from stationary or area sources (other than the sources listed in Mitigation Measure M-AQ-5c), the San Francisco Planning Department shall require, during the environmental review process of subsequent development projects, but not later than the first project approval action, the preparation of an analysis by a qualified air quality specialist that includes a site survey to identify residential or other sensitive receptors within 1,000 feet of the project site. For purposes of this measure, sensitive receptors are considered to include housing units; child care centers; schools (high school age and below); and inpatient health care facilities, including nursing or retirement homes and similar establishments. The assessment shall also include an estimate of emissions of toxic air contaminants from the source from the subsequent development and shall identify all feasible measures to reduce emissions. These measures shall be incorporated into the project prior to the first approval action.

M-AQ-7c *Design Land Use Buffers Around Active Loading Docks.* For subsequent development projects that include loading docks that would be expected to accommodate more than 100 trucks per day (or 40 transportation refrigeration

trucks per day), locate truck activity areas, including loading docks and delivery areas, as far away from sensitive receptors (such as residences, child care, or medical facilities) as feasible.

M-AQ-7d *Implementation of Mitigation Measures M-AQ-4b and M-AQ-5c for Projects within the Existing or Future Air Pollutant Exposure Zone.* All construction within the existing APEZ or newly added parcels that meet the APEZ criteria (Block 3505, Lots 007 and 008; Block 3503, Lot 004; and Block 0814, Lot 003), shall implement M-AQ-4b. All subsequent development projects that include diesel generators or diesel fire pumps within the existing APEZ or newly added parcels that meet the APEZ criteria, as listed above, shall implement Mitigation Measure M-AQ-5c.

M-AQ-7e *Update Air Pollution Exposure Zone.* The Department of Public Health in coordination with the planning department is required to update the Air Pollution Exposure Zone Map in San Francisco Health Code article 38 at least every five years. The planning department shall coordinate with the Department of Public Health to update the Air Pollution Exposure Zone, taking into account updated health risk methodologies and traffic generated by the Hub Plan.

Significance after Mitigation

Mitigation Measure M-AQ-7b in combination with Mitigation Measure M-AQ-5c, which is discussed under Impact AQ-5, above, would reduce emissions of PM_{2.5} and other TACs from new stationary sources. As noted above under Impact AQ-5, generators with Tier 4 engines emit 75 to 85 percent fewer DPM and PM_{2.5} emissions than Tier 2 engines, while emissions of diesel particulate matter can be reduced by 89 to 94 percent with Level 3 VDECS compared to equipment with engines meeting no emission standards. Mitigation Measure M-AQ-7c would protect sensitive land uses from emissions associated with truck activity areas, thereby reducing any exposure of existing or new sensitive land uses to Hub Plan-generated stationary-source emissions. Mitigation Measure M-AQ-7d would require Mitigation Measure M-AQ-4b to be implemented for all projects within the Hub Plan area that propose construction on newly added parcels that meet the APEZ criteria. Mitigation Measure M-AQ-7e would require the Public Health Department, in coordination with the planning department, to update the Air Pollution Exposure Zone Map taking into account the modeling results from the Hub Plan analysis above.

The effectiveness of M-AQ-5c has been quantitatively evaluated and the results are shown in **Table 3.D-11** and **Table 3.D-12**, pp. 3.D-68 and 3.D-69, for cancer risk and PM_{2.5} concentrations, respectively. As shown there, even with mitigation, the Hub Plan would result in a cancer risk of 37 per 1 million persons exposed and PM_{2.5} concentrations of 0.12 µg/m³. Given that the Hub Plan's cancer risk impact would exceed the significance threshold of seven per 1 million persons exposed, the Hub Plan's cancer risk impact would remain *significant and unavoidable*.

Regarding PM_{2.5} concentrations, the Hub Plan's contribution with mitigation would be reduced to a level that would be below the threshold of 0.2 µg/m³. However, given the uncertainty associated with the timing, duration, and intensity of construction for subsequent development projects, it is possible that sensitive receptors could be exposed to construction emissions from multiple development projects occurring at the same time, which could result in an exceedance of the PM_{2.5} concentration threshold. Therefore, because it cannot be stated with certainty that future sensitive receptors would not be exposed to an exceedance of the PM_{2.5} concentration threshold, it is concluded that PM_{2.5} concentrations from Hub Plan implementation would also be *significant and unavoidable*.

Impact AQ-8. Construction and operational activities associated with the streetscape and street network improvements proposed as part of the Hub Plan would not result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. (Less than Significant)

Streetscape and street network improvements that are proposed as part of the Hub Plan would be subject to the conditions of the Clean Construction Ordinance. This ordinance requires implementation of measures to reduce diesel emissions generated at publicly funded construction sites and thereby related potential health risks. Specifically, the ordinance requires that City-funded projects employing heavy off-road equipment for 20 days or more that are within 1,000 feet of a sensitive receptor and within the APEZ use diesel engines that meet or exceed either EPA or air board Tier 2 off-road emission standards and be retrofitted with an air board Level 3 VDECS. Additionally, the ordinance prohibits the use of portable diesel engines where alternative sources of power are available (i.e., requires use of available utility-provided electricity in lieu of a diesel generator), limits idling of diesel engines, requires that equipment be properly maintained and tuned, and mandates submittal to the authorizing City department of a construction emissions minimization plan prior to the start of work. Waivers to the equipment requirements may be granted only if compliance is not feasible or in case of emergency. For projects outside the APEZ, the ordinance requires the use of biodiesel fuel grade B20 or higher for off-road diesel equipment and use of Tier 2 or similar off-road equipment. As discussed under Impact AQ-7, above, generators with Tier 4 engines emit 75 to 85 percent fewer DPM and PM_{2.5} emissions than Tier 2 engines, while emissions of diesel particulate matter can be reduced by 89 to 94 percent with Level 3 VDECS compared to equipment with engines meeting no emission standards. Compliance with the engine requirements in the Clean

Construction Ordinance would ensure that construction-related health risks from streetscape and street network improvement projects would not be significant.

Although the streetscape and street network improvement projects would not be anticipated to generate new vehicle trips or induce a substantial number of additional vehicle trips, streetscape and street network projects that remove travel lanes could result in increased congestion or encourage drivers to use other nearby streets, resulting in redistribution of vehicle trips along the roadway network. As discussed in Impact AQ-3, above, quantitative analysis of the criteria air pollutant impacts of the Sixth Street Improvement project was conducted. That project included elements that would be similar to (and likely not greater than) the streetscape and street network improvements proposed under the Hub Plan. The analysis concluded that at most, the streetscape and street network improvements could result in an increase of particulate matter on the order of 0.1 lb/day. Assuming all the particulate matter is diesel particulate, this would not be a substantial increase in emissions because these emissions would disperse from the point at which the pollutants are emitted, substantially reducing the actual exposure one would receive at sensitive receptor locations. Therefore, because the proposed streetscape and street network improvement projects would be similar to the Sixth Street Improvement Project, which found health risk impacts to be less than significant, health risk impacts from Hub Plan streetscape and street network improvement projects would similarly be *less than significant*.

Impact AQ-9. During construction and operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. (Less than Significant with Mitigation)

30 Van Ness Avenue Project

Construction and operation of the 30 Van Ness Avenue Project would result in emissions of PM_{2.5} and toxic air contaminants and expose onsite and nearby sensitive receptors to substantial pollutant concentrations. Construction activities that would result in such emissions include demolition, excavation, building construction and interior and exterior finishing. Off-road diesel equipment used for clearing and grading, materials handling and installation, and other construction activities would generate diesel PM and TAC emissions. Operational emissions would result from periodic testing of the backup diesel generators and additional traffic volumes that would be generated by the 30 Van Ness Avenue Project. Therefore, a project-specific health risk assessment was conducted for the 30 Van Ness Avenue Project.

The project-specific health risk analysis evaluated cancer risks and PM_{2.5} concentrations resulting from the construction and operations of the proposed project at 30 Van Ness Avenue on the surrounding community, including both onsite and offsite sensitive receptors. The methodology employed for calculating health risks associated with individual projects (at 30 Van Ness Avenue

and also 98 Franklin Street, discussed below) were similar to what was used for the Hub Plan-level health risk analysis discussed above, under Impact AQ-7, with adjustments made to account for the specific sources for these individual projects. The project-specific sources that were considered in the analysis of the individual projects at 30 Van Ness Avenue and 98 Franklin Street were the project-generated traffic and the emissions from each proposed project's generator. Because the 30 Van Ness Avenue and 98 Franklin Street projects' vehicle trip emissions are already accounted for in the Hub Plan-level analysis, a proportional analysis of the Hub Plan-generated traffic compared with traffic generated by the individual projects was conducted to determine the contribution of traffic-related cancer risk and PM_{2.5} attributable to each project. In addition, emissions associated with the construction of each individual project were also incorporated into the analysis, based on project specific information. More information regarding the emissions estimation assumptions and health risk modeling conducted for the 30 Van Ness Avenue Project can be found in the Air Quality Technical Report.⁶⁵

Results of the health risk assessment are reported for the MEISR. The health risk from the project at all other sensitive receptor locations would be less than that reported for the MEISR. Because cancer risk is evaluated over a 30-year period, the cancer risk analysis below presents the risk that would result when exposed to both construction and operational emissions together when assessing the cancer risk impact to offsite sensitive receptors. The MEISR from the "baseline plus 30 Van Ness Avenue Project" scenario was determined by finding the maximum project impact from the sum of the following sources: 30 Van Ness Avenue Project operational traffic emissions, 30 Van Ness Avenue Project generator emissions, and 30 Van Ness Avenue Project construction emissions. Onsite receptors would not be exposed to construction period emissions, so the health risk contribution from construction emissions to onsite receptors is not applicable.

Following the determination of the MEISR from project-only emissions sources, the results from the background sources (Baseline (2020) No Hub Plan Scenario) were added to understand the overall health risk impact at each offsite and onsite MEISR.

Cancer Risk

For the offsite MEISR, the cancer risk contribution from construction and operation associated with 30 Van Ness Avenue for the unmitigated scenario⁶⁶ would be 202 in 1 million, as shown in the "Total Project Contribution" row of **Table 3.D-13**. The total cancer risk at the offsite MEISR

⁶⁵ Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California*, July 10, 2019.

⁶⁶ The unmitigated scenario was evaluated assuming no control measures for the diesel-powered construction equipment and generators. Fleet average emission factors consistent with default assumptions of CalEEMod® 2016.3.2 were used.

would be 496 in 1 million. The breakdown of individual project sources contributing to the cancer risk would be as follows:

- 30 Van Ness Avenue Project construction would contribute 201 in 1 million
- 30 Van Ness Avenue Project generators would contribute 0.90 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 0.11 in 1 million

For the onsite MEISR, which would not be exposed to the 30 Van Ness Avenue Project construction emissions, the cancer risk contribution from unmitigated operation of 30 Van Ness Avenue would be 22 in 1 million, as shown in **Table 3.D-13**. The total cancer risk at the onsite MEISR would be 281 in 1 million. The breakdown of individual sources contributing to the cancer risk would be as follows:

- 30 Van Ness Avenue Project generators would contribute 21 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 0.10 in 1 million

As shown in the **Table 3.D-13**, below, the project's contribution to cancer risk at onsite and offsite receptors would be 202 and 22 in 1 million, respectively, which would exceed the significance threshold of seven per 1 million persons exposed, resulting in a *significant impact*.

Implementation of Mitigation Measure M-AQ-9a and M-AQ-9b, below would be required to reduce the cancer risk from the 30 Van Ness Avenue Project. As noted above in Impact AQ-5 and Impact AQ-7, generators with Tier 4 engines emit 75 to 85 percent fewer diesel particulate matter and PM_{2.5} emissions than Tier 2 engines.

TABLE 3.D-13. BASELINE (2020) + 30 VAN NESS AVENUE PROJECT CANCER RISK AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	Cancer Risk (per 1 million persons exposed)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Project Cancer Risk Contributions				
Construction ¹	201	4.4		
Generators ²	0.90	0.12	21	2.9
30 Van Ness Avenue Project Traffic	0.11	0.11	0.10	0.10
Total Project Contribution	202 ³	4.6	22	3.0
Significance threshold for project cancer risk contribution within an APEZ	7	7	7	7
Significant?	Yes	No	Yes	No

TABLE 3.D-13. BASELINE (2020) + 30 VAN NESS AVENUE PROJECT CANCER RISK AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	Cancer Risk (per 1 million persons exposed)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Baseline (2020) No Hub Plan Cancer Risk Contributions				
Baseline (2020) No Hub Plan Traffic	251	251	217	217
Rail Sources	0.80	0.80	0.78	0.78
Maritime Sources	37	37	37	37
Existing Stationary Sources	4.9	4.9	4.7	4.7
Total Cancer Risk at MEISR	496	298	281	262

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

- ¹ Onsite receptors would not be exposed to construction emissions.
- ² Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.
- ³ Summing of the individual sources may not add exactly to the total due to rounding.

Mitigation Measures

The following mitigation measure would be applicable to the individual proposed project at 30 Van Ness Avenue.

M-AQ-9a: *Construction Emissions Minimization Plan for 30 Van Ness Avenue Project.* Prior to construction, the 30 Van Ness Avenue project sponsor shall submit a construction emissions minimization plan to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. Upon approval of construction emissions minimization plan, the sponsor shall implement the plan. The plan shall detail project compliance with the following requirements:

1. All construction equipment shall contain engine tiers consistent with the U.S. Environmental Protection Agency engine tiers as provided in **Table M-AQ-9a**, Construction Equipment Summary for 30 Van Ness Avenue Project, below. Documentation of equipment tiers for in-use equipment shall be maintained onsite as part of the plan.
2. All off-road engines shall be fueled with renewable diesel (at least 99 percent renewable diesel or R99), if commercially available.

3. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
4. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.
5. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and hours of operation.

The construction emissions minimization plan shall be kept onsite and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the construction emissions minimization plan and a way to request a copy of the plan. The project sponsor shall provide copies of the plan as requested. Should any deviations from the requirements or the equipment in **Table M-AQ-9a** be proposed prior to or during construction, the project sponsor shall demonstrate, to the satisfaction of the ERO, that an equivalent amount of emissions reduction would be achieved.

Reporting. Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 5, above.

Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in Paragraph 5.

Certification Statement and Onsite Requirements. Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.

TABLE M-AQ-9A: CONSTRUCTION EQUIPMENT SUMMARY FOR 30 VAN NESS AVENUE PROJECT

Phase	Project Equipment at Site	Horsepower	Equipment Quantity	Usage Hours per Weekday	Usage Hours per Saturday	Controlled Equipment Details		Equipment Usage Data	
						Fuel	Control	Start	End
Demolition	Concrete/Industrial Saws	81	1	2.0	2.0	Diesel	Tier 4f	5/1/2020	11/1/2020
	Rubber Tired Dozers	247	1	1.0	1.0	Diesel	Tier 4f	5/1/2020	11/1/2020
	Sweepers/Scrubbers	64	1	2.0	2.0	Diesel	Tier 4f	5/1/2020	11/1/2020
	Excavators	158	1	2.4	2.4	Diesel	Tier 4f	5/1/2020	11/1/2020
Site Preparation	Tractors/Loaders/Blackhoes	97	1	8.0	8.0	Diesel	Tier 4f	11/2/2020	1/31/2021
	Excavators	158	3	8.0	8.0	Diesel	Tier 4f	11/2/2020	1/31/2021
	Road Cleaner/Sweepre/Scrubber	64	1	4.0	4.0	Diesel	Tier 4f	11/2/2020	1/31/2021
Grading	Rubber Tired Dozers	247	1	1.0	1.0	Diesel	Tier 4f	2/1/2021	4/30/2021
	Tractors/Loaders/Backoes	97	2	6.0	6.0	Diesel	Tier 4f	2/1/2021	4/30/2021
	Shoring Equipment (Boring Rigs)	221	2	2.4	2.4	Diesel	Tier 4f	2/1/2021	3/1/2021
	Tie Back Equipment (Drilling Rigs)	221	2	2.4	2.4	Diesel	Tier 4f	3/2/2021	3/30/2021
	Ground Improvement (Drilling Rig)	221	1	2.4	2.4	Diesel	Tier 4f	4/1/2021	4/30/2021
	Sweepers/Scrubbers	64	1	8.0	8.0	Diesel	Tier 4f	2/1/2021	4/3/2021
Building Construction	Cranes	231	1	3.0	3.0	Electric	N/A	8/1/2021	12/1/2022
	Forklifts	89	2	4.5	4.5	Propane	N/A	5/1/2021	12/31/2023
	Tractors/Loaders/Backoes	97	2	2.0	2.0	Diesel	Tier 4f	5/1/2021	12/31/2023
	Tower Crane	231	1	3.0	3.0	Electric	N/A	9/1/2021	5/1/2022
	Aerial Lifts (#1)	63	1	8.0	8.0	Electric	N/A	11/1/2021	3/1/2023
	Aerial Lifts (#2)	63	1	8.0	8.0	Electric	N/A	11/1/2021	5/1/2022
	Concrete Pumps	84	2	2.0	2.0	Electric	N/A	7/1/2021	10/1/2022
	Welders	46	6	0.80	0.80	Electric	N/A	5/1/2021	12/31/2023

Phase	Project Equipment at Site	Horsepower	Equipment Quantity	Usage Hours per Weekday	Usage Hours per Saturday	Controlled Equipment Details		Equipment Usage Data	
						Fuel	Control	Start	End
Paving	Tractors/Loaders/Backhoes	97	1	5.3	5.3	Diesel	Tier 4f	11/1/2022	5/1/2023
	Concrete/Industrial Saws	81	2	2.0	2.0	Diesel	Tier 4f	11/1/2022	5/1/2023
Architectural Coating	Air Compressors	78	1	3.0	3.0	Electric	N/A	11/1/2021	1/1/2023

Notes: Project equipment was provided by the project sponsor.

Abbreviations:

N/A = not applicable

Tier 4f = Tier 4 Final

Tier 4i = Tier 4 Interim

M-AQ-9b *Best Available Control Technology for Diesel Generators for 30 Van Ness Avenue Project.* The two proposed diesel generators shall have engines that meet Tier 4 Final emission standards and be fueled with renewable diesel, R99, if commercially available. The project sponsor shall limit testing of the emergency diesel generators to no more than 20 hours per year. Each diesel backup generator permit shall be submitted to the San Francisco Planning Department for review and approval prior to issuance of a permit for the generator from the San Francisco Department of Building Inspection. Once operational, all diesel backup generators shall be maintained in good working order for the life of the equipment and any future replacement of the diesel backup generators shall be required to be consistent with these emissions specifications. The project sponsor shall maintain records of the testing schedule for each diesel backup generator for the life of that diesel backup generator and provide this information for review to the planning department within three months of requesting such information.

Significance After Mitigation

Table 3.D-13, p. 3.D-79, summarizes the results from the mitigated scenario at both offsite and onsite MEISRs, which were evaluated assuming generators and diesel-powered construction equipment would meet the requirements of Mitigation Measures M-AQ-9a and M-AQ-9b. As shown in **Table 3.D-13**, p. 3.D-79, in the mitigated columns, implementation of these mitigation measures would reduce cancer risk levels at both offsite and onsite MEISRs to 4.6 and 3.0, respectively. Therefore, with mitigation, the cancer risk from the 30 Van Ness Avenue Project would be reduced to a *less-than-significant* level.

PM_{2.5} Concentration

For the offsite MEISR, the maximum PM_{2.5} concentration from construction and operation for the unmitigated scenario would be 0.60 µg/m³, as shown in the “Total Project Contribution” row of **Table 3.D-14**. The total PM_{2.5} concentration at the offsite MEISR would be 10.1 µg/m³. The breakdown of individual project-generated sources contributing to PM_{2.5} concentrations would be as follows:

- 30 Van Ness Avenue Project construction would contribute 0.59 µg/m³
- 30 Van Ness Avenue Project generators would contribute 0.0024 µg/m³
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 7.5E-04 µg/m³

TABLE 3.D-14. BASELINE (2020) + 30 VAN NESS AVENUE PROJECT PM_{2.5} CONCENTRATION AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	PM _{2.5} Concentration (µg/m ³)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Project PM_{2.5} Contributions				
Construction ¹	0.59	0.020		
Generators ²	0.0024	3.1E-04	0.029	0.0038
30 Van Ness Avenue Project Traffic	7.5E-04	7.5E-04	7.8E-04	7.8E-04
Total Project Contribution	0.60	0.021	0.030	0.0046
Significance threshold for project PM _{2.5} contribution within an APEZ	0.2	0.2	0.2	0.2
Significant?	Yes	No	No	No
Baseline (2020) No Hub Plan PM_{2.5} Contributions				
Baseline (2020) No Hub Plan Traffic	1.6	1.6	1.6	1.6
Rail Sources	0.0015	0.0015	0.0015	0.0015
Maritime Sources	0.048	0.048	0.048	0.048
Existing Stationary Sources	0.049	0.049	0.048	0.048
Background Concentration ³	7.8	7.8	7.8	7.8
Total PM _{2.5} Concentration at MEISR	10.1	9.5	9.5	9.5

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

¹ Onsite receptors would not be exposed to construction emissions.

² Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.

³ The background PM_{2.5} concentration is the average annual monitored PM_{2.5} concentration from the air district's 16th and Arkansas Street monitoring station.

For the onsite MEISR, which would not be exposed to the 30 Van Ness Avenue Project construction emissions, the PM_{2.5} concentration from unmitigated operation would be 0.030 µg/m³, as shown in **Table 3.D-14**, p. 3.D-85. The total PM_{2.5} concentration at the onsite MEISR would be 9.5 µg/m³. The breakdown of individual sources contributing to PM_{2.5} concentrations would be as follows:

- 30 Van Ness Avenue Project generators would contribute 0.029 µg/m³
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 7.8E-04 µg/m³

Therefore, because the 30 Van Ness Avenue Project would result in PM_{2.5} emissions that would be below 0.2 µg/m³, the 30 Van Ness Avenue Project would not result in significant PM_{2.5}

concentrations for onsite sensitive receptors. PM_{2.5} emissions from the project at onsite sensitive receptors would be less than significant.

As shown in **Table 3.D-14**, p. 3.D-85, the project's contribution to PM_{2.5} concentration at offsite receptors (only) would be 0.60 µg/m³, which would exceed the significance threshold of 0.2 µg/m, resulting in a *significant impact*. Implementation of Mitigation Measure M-AQ-9a, Requirement for Construction Emissions Minimization Plan for 30 Van Ness Avenue Project, and Mitigation Measure M-AQ-9b, Requirement for Best Available Control Technology for Diesel Generators for 30 Van Ness Avenue Project, would be required to reduce the PM_{2.5} concentration.

The effectiveness of the above mitigation measures were quantitatively evaluated. **Table 3.D-14**, p. 3.D-85, summarizes the results from the mitigated scenarios for both offsite and onsite MEISRs, which were evaluated assuming that the proposed generators and diesel-powered construction equipment would meet Tier 4 standards or equivalent. As shown in **Table 3.D-14**, p. 3.D-85, in the mitigated columns, implementation of these mitigation measures would reduce PM_{2.5} concentrations at offsite MEISRs to 0.021 µg/m, which is below the significance threshold of 0.2 µg/m. Therefore, with the above mitigation measures, the PM_{2.5} concentration from the 30 Van Ness Avenue Project would be reduced to a *less-than-significant* level.

98 Franklin Street

Construction and operation of the 98 Franklin Street Project would result in emissions of PM_{2.5} and toxic air contaminants and expose onsite and nearby sensitive receptors to substantial pollutant concentrations. Construction activities that would result in such emissions include demolition, excavation, building construction and interior and exterior finishing. Off-road diesel equipment used for clearing and grading, materials handling and installation, and other construction activities would generate diesel PM and TAC emissions. Operational emissions would result from periodic testing of the backup diesel generator and additional traffic volumes that would be generated by the 98 Franklin Street Project. Therefore, a project-specific health risk assessment was conducted for the 98 Franklin Street Project.

The project-specific health risk analysis evaluated excess cancer risks and PM_{2.5} concentrations resulting from the construction and operations of the proposed project at 98 Franklin Street on the surrounding community, including both onsite and offsite sensitive receptors.

Results of the health risk assessment are reported for MEISR. The health risk from the project at all other sensitive receptor locations would be less than that reported for the MEISR. Because cancer risk is evaluated over a 30-year period, the cancer risk analysis below presents the risk that would result when exposed to both construction and operational emissions together when assessing the cancer risk impact to offsite sensitive receptors. The MEISR from the "baseline plus 98 Franklin Street Project" scenario was determined by finding the maximum project impact from the following sources: 98 Franklin Street Project operational traffic emissions, 98 Franklin Street Project generator emissions, and 98 Franklin Street Project construction emissions. Onsite

receptors would not be exposed to construction period emissions, so the health risk contribution from construction emissions to onsite receptors is not applicable.

Following the determination of the MEISR from project-only impacts, the results from the background sources (Baseline (2020) No Hub Plan Scenario) were added to understand the overall health risk impact at each offsite and onsite receptor. More information regarding the emissions estimation assumptions and health risk modeling conducted for the 98 Franklin Street Project can be found in the Air Quality Technical Report.⁶⁷

Cancer Risk

For the offsite MEISR, the cancer risk contribution from construction and operation associated with 98 Franklin Street for the unmitigated scenario⁶⁸ would be 72 in 1 million, as shown in the “Total Project Contribution” row of **Table 3.D-15**. The total cancer risk at the offsite MEISR would be 305 in 1 million. The breakdown of individual project sources contributing to the cancer risk would be:

- 98 Franklin Street Project construction would contribute 70 in 1 million
- 98 Franklin Street Project generators would contribute 1.6 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 0.024 in 1 million

TABLE 3.D-15. BASELINE (2020) + 98 FRANKLIN STREET PROJECT CANCER RISK AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	Cancer Risk (per 1 million persons exposed)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Project Cancer Risk Contributions				
Construction ¹	70	5.6		
Generators ²	1.6	0.22	6.1	0.82
98 Franklin Street Project Traffic	0.024	0.024	0.019	0.019
Total Project Contribution	72	5.8	6.2	0.84
Significance threshold for project cancer risk contribution within an APEZ	7	7	7	7
Significant?	Yes	No	No	No

⁶⁷ Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California*, July 10, 2019.

⁶⁸ The unmitigated scenario was evaluated assuming no control measures for the diesel-powered construction equipment and generators. Fleet average emission factors consistent with default assumptions of CalEEMod[®] 2016.3.2 were used.

TABLE 3.D-15. BASELINE (2020) + 98 FRANKLIN STREET PROJECT CANCER RISK AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	Cancer Risk (per 1 million persons exposed)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Baseline (2020) No Hub Plan Cancer Risk Contributions				
Baseline (2020) No Hub Plan Traffic	193	193	183	183
Rail Sources	0.84	0.84	0.83	0.83
Maritime Sources	35	35	35	35
Existing Stationary Sources	4.3	4.3	4.1	4.1
Total Cancer Risk at MEISR	305	239	229	224

Source: Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects*, San Francisco, California, July 10, 2019.

Notes:

- ¹ Onsite receptors would not be exposed to construction emissions.
- ² Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.

For the onsite MEISR, which would not be exposed to the 98 Franklin Street Project construction emissions, the cancer risk contribution from unmitigated operation would be 6.2 in 1 million, as shown in **Table 3.D-15**, and below the threshold of 7 in 1 million; therefore, it would be considered a less-than-significant impact. The total cancer risk at the onsite MEISR would be 229 in 1 million. The breakdown of individual project sources contributing to the cancer risk would be as follows:

- 98 Franklin Street Project generators would contribute 6.1 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 0.019 in 1 million

As shown in the **Table 3.D-15**, the project’s contribution to cancer risk at offsite receptors (only) would be 72 per 1 million, which would exceed the significance threshold of seven per 1 million persons exposed, resulting in a *significant impact*.

Implementation of Mitigation Measure M-AQ-9c, Construction Equipment Summary for 98 Franklin Street Project, and Mitigation Measure M-AQ-5c, discussed under Impact AQ-5, above, would be required to reduce the cancer risk. As noted above in those discussions, generators with Tier 4 engines emit 75 to 85 percent fewer DPM and PM_{2.5} emissions than Tier 2 engines.

Mitigation Measures

The following mitigation measure would be applicable to the individual proposed project at 98 Franklin Street.

M-AQ-5c: *Best Available Control Technology for Projects with Diesel Generators and Fire Pumps*

M-AQ-9c: *Construction Emissions Minimization Plan for 98 Franklin Street Project.* Prior to construction, the 98 Franklin Street project sponsor shall submit a construction emissions minimization plan to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. Upon approval of plan, the sponsor shall implement the plan. The plan shall detail project compliance with the following requirements:

1. All construction equipment shall contain engine tiers consistent with the U.S. Environmental Protection Agency engine tiers as provided in **Table M-AQ-9c**, Construction Equipment Summary for 98 Franklin Street Project, below. Documentation of equipment tiers for in-use equipment shall be maintained onsite as part of the plan.
2. All off-road engines shall be fueled with renewable diesel (at least 99 percent renewable diesel or R99), if commercially available.
3. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.
4. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.
5. The construction emissions minimization plan shall include estimates of the construction timeline by phase with a description of each piece of off-road equipment required for every construction phase. Off-road equipment descriptions and information may include, but is not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel use and hours of operation.

The construction emissions minimization plan shall be kept onsite and available for review during working hours by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the construction emissions minimization plan and a way to request a copy of the plan. The project sponsor shall provide copies of the plan as requested. Should any deviations from the requirements or the equipment in **Table M-AQ-9c** be proposed prior to or during construction, the project sponsor shall demonstrate, to the satisfaction of the ERO, that an equivalent amount of emissions reduction would be achieved.

Reporting. Quarterly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in Paragraph 5, above.

Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in Paragraph 5.

Certification Statement and Onsite Requirements. Prior to the commencement of construction activities, the project sponsor shall certify (1) compliance with the construction emissions minimization plan, and (2) all applicable requirements of the construction emissions minimization plan have been incorporated into contract specifications.

TABLE M-AQ-9C: CONSTRUCTION EQUIPMENT SUMMARY FOR 98 FRANKLIN STREET PROJECT

Phase	Project Equipment at Site	Horsepower	Equipment Quantity	Usage Hours per Weekday	Controlled Equipment Details		Equipment Usage Data	
					Fuel	Control	Start	End
Demolition	Concrete/Industrial Saws	81	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
	Excavators	67	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
	Rubber Tired Dozers	247	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
	Skid Steer Loaders	73	1	8.0	Diesel	Tier 4i	6/1/2021	6/5/2021
Shoring	Drill Rig	500	1	4.5	Diesel	Tier 4i	6/8/2021	8/7/2021
	Excavators	67	1	1.5	Diesel	Tier 4i	6/8/2021	8/7/2021
	Cranes	275	1	1.0	Diesel	Tier 4i	6/8/2021	8/7/2021
	Tieback rig	250	1	3.0	Diesel	Tier 4i	6/8/2021	8/7/2021
	Rough Terrain Forklift	100	1	1.0	Diesel	Tier 4i	6/8/2021	8/7/2021
	Generator	40	1	4.0	Diesel	Tier 4f	6/8/2021	8/7/2021
Excavation	Excavators	250	3	6.0	Diesel	Tier 4i	8/10/2021	10/30/2021
	Skid Steer Loaders	75	2	6.0	Diesel	Tier 4i	8/10/2021	10/30/2021
Building Construction	Cranes	231	1	3.0	Electric	N/A	11/2/2021	8/5/2023
	Forklifts	89	1	2.1	Propane	N/A	11/2/2021	8/5/2023
	Welders	46	2	0.16	Electric	N/A	11/2/2021	8/5/2023
	Sissor lifts	89	1	1.5	Electric	N/A	11/2/2021	8/5/2023
	Signal Boards	6.0	2	8.0	Electric	N/A	11/2/2021	8/5/2023
Paving	Pavers	130	1	4.0	Diesel	Tier 4i	8/1/2023	8/5/2023
	Rollers	50	1	4.0	Diesel	Tier 4i	8/1/2023	8/5/2023
Architectural Coating	Airless Paint Sprayers	78	3	4.0	Electric	N/A	1/7/2023	8/5/2023

Notes: Project equipment was provided by the project sponsor.

Abbreviations:

N/A = not applicable

Tier 4f = Tier 4 Final

Tier 4i = Tier 4 Interim

Significance After Mitigation

The effectiveness of the above mitigation measures was quantitatively evaluated. **Table 3.D-15**, p. 3.D-87, summarizes the results from the mitigated scenario for both offsite and onsite MEISRs, which were evaluated assuming generators and diesel-powered construction equipment would meet Tier 4 standards or equivalent. For construction equipment, certain diesel-powered equipment (identified in Table M-AQ-9c) was assumed to use non-diesel fuel (i.e., propane) or electricity. As shown in **Table 3.D-15**, p. 3.D-87, in the mitigated columns, implementation of these mitigation measures would reduce cancer risk levels at offsite MEISRs to 5.8 per 1 million persons exposed, which is below the significance threshold of seven per 1 million persons exposed. Therefore, with the above mitigation measures, the cancer risk impact from the 98 Franklin Street Project would be reduced to a *less-than-significant* level.

PM_{2.5} Concentration

For the offsite MEISR, the maximum PM_{2.5} concentration contribution from construction and operation for the unmitigated scenario would be 0.29 µg/m³, as shown in the “Total Project Contribution” row of **Table 3.D-16**. The total PM_{2.5} concentration at the offsite MEISR would be 9.5 µg/m³. The breakdown of individual project-generated sources contributing to PM_{2.5} concentrations would be as follows:

- 98 Franklin Street Project construction would contribute 0.28 µg/m³
- 98 Franklin Street Project generators would contribute 0.0024 µg/m³
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 1.8E-04 µg/m³

For the onsite MEISR, which would not be exposed to the 98 Franklin Street Project construction emissions, the PM_{2.5} concentration contribution from unmitigated operation would be 0.0084 µg/m³, as shown in **Table 3.D-16**. The total PM_{2.5} concentration at the onsite MEISR would be 9.3 µg/m³. The breakdown of individual project-generated sources contributing to PM_{2.5} concentrations would be as follows:

- 98 Franklin Street Project generators would contribute 0.0083 µg/m³ for
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 1.5E-04 µg/m³

As shown in **Table 3.D-16**, the project’s contribution to PM_{2.5} concentration at offsite receptors (only) would exceed the significance threshold of 0.2 µg/m³, resulting in a *significant impact*. Implementation of Mitigation Measure M-AQ-9c, discussed above, and Mitigation Measure M-AQ-5c, discussed under Impact AQ-5, above, would be required to reduce the PM_{2.5} concentration.

As shown in **Table 3.D-16**, in the “mitigated” columns, implementation of mitigation measures would reduce PM_{2.5} concentration at the offsite MEISRs to 0.032 µg/m³, which is less than the significance threshold of 0.2 µg/m³. Therefore, with mitigation, the PM_{2.5} concentration from the 98 Franklin Street Project would be reduced to a *less-than-significant* level.

TABLE 3.D-16. BASELINE (2020) + 98 FRANKLIN STREET PROJECT PM_{2.5} CONCENTRATION AT THE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	PM _{2.5} Concentration (µg/m ³)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
Project PM_{2.5} Contributions				
Construction ¹	0.28	0.032		
Generators ²	0.0024	3.2E-04	0.0083	0.0011
98 Franklin Street Project Traffic	1.8E-04	1.8E-0	1.5E-04	1.5E-04
Total Project Contribution	0.29	0.032	0.0084	0.0012
Significance threshold for project PM _{2.5} contribution within an APEZ	0.2	0.2	0.2	0.2
Significant?	Yes	No	No	No
Baseline (2020) No Hub Plan PM_{2.5} Contributions				
Baseline (2020) No Hub Plan Traffic	1.4	1.4	1.4	1.4
Rail Sources	0.0016	0.0016	0.0016	0.0016
Maritime Sources	0.046	0.046	0.045	0.045
Existing Stationary Sources	0.044	0.044	0.043	0.043
Background Concentration ³	7.8	7.8	7.8	7.8
Total PM _{2.5} Concentration at MEISR	9.5	9.3	9.3	9.3

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

¹ Onsite receptors would not be exposed to construction emissions.

² Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.

³ The background PM_{2.5} concentration is the average annual monitored PM_{2.5} concentration from the air district’s 16th and Arkansas Street monitoring station.

ODORS

Impact AQ-10. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue or 98 Franklin Street, would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. (Less than Significant)

As stated under the Environmental Setting, above, likely potential sources of odors in the Hub Plan area are generally limited to auto body shops. Some people may find odors from restaurants

objectionable at times, although restaurants are unlikely to generate a substantial number of complaints. In addition, air district Regulation 7 places general limitations on odorous substances and specific emission limitations on certain odorous compounds. Sources that typically generate odors such as wastewater treatment and pumping facilities; landfills, transfer stations, and composting facilities; petroleum refineries, asphalt batch plants, chemical (including fiberglass) manufacturing, and metal smelters; painting and coating operations; rendering plants; coffee roasters and food processing facilities are generally not present in the Hub Plan area and the Hub Plan does not include zoning changes that would encourage such sources in the Hub Plan area. Moreover, the land uses proposed as part of 30 Van Ness Avenue and 98 Franklin Street individual projects would not create sources of odor. Given the limited number of land uses in the Hub Plan area that would likely be associated with odorous emissions, as described in the Environmental Setting, and given that few, if any, major new odor sources are likely to be developed in the Hub Plan area, as a result of subsequent development projects, streetscape and street network improvements, or individual development projects at 30 Van Ness Avenue and 98 Franklin Street, odor impacts would be *less than significant* for all project components.

CUMULATIVE IMPACTS

CRITERIA AIR POLLUTANTS

Criteria air pollutant impacts are cumulative impacts by nature. Emissions from past, present, and future projects in the region also have or will contribute to adverse regional air quality impacts on a cumulative basis. No single project by itself would be sufficient in size to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulative air quality conditions.⁶⁹ Accordingly, cumulative impacts related to criteria air pollutants are already addressed under the following impacts discussions: Impact AQ-2 for the proposed Hub Plan, Impact AQ-3 for the proposed streetscape and street network improvements, Impact AQ-4 for construction of subsequent development projects proposed under the Hub Plan, Impact AQ-5 for operation of subsequent development projects proposed under the Hub Plan, and Impact AQ-6 for construction and operation of individual development projects at 30 Van Ness Avenue and 98 Franklin Street. The above impact discussions provide a cumulative criteria air pollutant analysis and no further cumulative analysis of criteria air pollutants is provided here.

⁶⁹ Bay Area Air Quality Management District, CEQA Air Quality Guidelines, May 2017, p. 2-1.

COMMUNITY RISK AND HAZARD IMPACTS

Impact C-AQ-1: The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions. (Significant and Unavoidable with Mitigation)

As described above in Impact AQ-7, the Hub Plan would indirectly result in traffic emissions, emissions from stationary sources and construction emissions. The Hub Plan would also enable the projects at 30 Van Ness Avenue and 98 Franklin Street. Collectively the impacts from these projects constitute the impacts of the Hub Plan and in Impact AQ-7 were found to result in a significant and unavoidable health risk impact. For the cumulative analysis, health risk modeling was conducted for 2040 conditions, consistent with the cumulative transportation analysis, using the same methodologies discussed above for the plan-level analysis. This cumulative analysis evaluated the health risk impact from the following emissions sources at each evaluated receptor point:

Background Emissions Sources

1. Cumulative (2040) No Plan traffic, which includes the traffic impacts from the implementation of the Central SoMa Plan in addition to other background growth in vehicle traffic

Non-road background sources that have impacts on sensitive receptor locations within the modeling domain, including: non-plan or project permitted stationary sources, rail, and maritime sources.

Hub Plan Emissions Sources

1. Hub Plan 2040 Traffic, which also accounts for traffic emissions from the 30 Van Ness Avenue and 98 Franklin Street projects
2. The 30 Van Ness Avenue and 98 Franklin Street project-level construction sources
3. Emergency generators that could be installed for the 11 sites rezoned to allow for structures that are 75 feet or taller, including the generators proposed for the 30 Van Ness Avenue and 98 Franklin Street projects⁷⁰

Similar to the Hub Plan-level analysis discussed above, construction health risk impacts of subsequent development projects are not included in the quantitative cumulative 2040 health risk analysis because this type of analysis requires project-specific information that cannot be ascertained for subsequent development projects at this time (given that no specific projects are

⁷⁰ Because building emergency generators for the two projects at 30 Van Ness Avenue and 98 Franklin Street operate at elevation, receptors were modeled on Project buildings and nearby buildings at multiple elevations. The highest impact for each receptor column was conservatively added to the impacts from traffic and other sources as if it were occurring at a ground-level breathing height of 1.8 meters (5.9 ft).

proposed on those sites). However, it is likely that health risks from subsequent development projects would be similar to that discussed above for the 30 Van Ness Avenue and 98 Franklin Street projects. Therefore, it is likely that the contribution to Hub Plan-level cumulative health risks would be greater than the quantitative modeling results reported below.

In addition, there are number of development projects that are independent from the Hub Plan proposed within and near the Hub Plan area that would generate additional air pollutant emissions as part of their construction and operational phases. There are currently approximately 21 cumulative projects within the Hub Plan area or 1,000 feet of the Hub Plan area.⁷¹ These projects are undergoing separate environmental review and some of these projects have required a quantitative health risk analysis. The projects that have required quantitative health risk analyses and the results of those analyses at those project's MEISRs are included in **Table 3.D-17**, below.

Air pollutant emissions that would be generated by construction of the projects in **Table 3.D-17**, as well as other cumulative projects where quantitative health risk modeling was not required would contribute to the cumulative health risk impact at sensitive receptor locations. Should these projects include stationary sources of emissions, they would also contribute to additional cumulative health risks. However, the effects of traffic emissions from these cumulative projects are reasonably accounted for in the 2040 Cumulative No Hub Plan scenario and therefore included in the quantitative total health risk analysis presented here. Thus, because cumulative projects would result in additional construction and possibly stationary source emissions, the cumulative health risk impact is likely greater than what is reported below. However, the Hub Plan area is already almost entirely within an APEZ, meaning that sensitive receptors are already exposed to air pollution at levels that result in a significant health risk. Therefore, a cumulative health risk impact exists and the question is whether the proposed project's contribution to these significant health risks is considerable. As a result, the analysis below focuses on the project's contribution to significant health risks in and near the Hub Plan area.

⁷¹ In accordance with air district guidance, the cumulative health risk is the summation of the health risk impact from all significant sources within a 1,000-foot radius of a project, in this case the Hub Plan area. See: Bay Area Air Quality Management District, Recommended Methods for Screening and Modeling Local Risks and Hazards, May 2012, pp. 6 and 11. Available online at <http://www.baaqmd.gov/~media/files/planning-and-research/ceqal-risk-modeling-approach-may-2012.pdf?la=en>, accessed May 8, 2019.

TABLE 3.D-17. QUANTITATIVE HEALTH RISK RESULTS FROM CUMULATIVE PROJECTS

	Address (Case Number)	Project Description	Excess Cancer Risk (in 1 million)	PM_{2.5} Concentration µg/m³
1	1629 Market Street (1601 – 1637 Market Street & 1125 Stevenson Street; 53 Colton Street (Plumbers Union site) two parcels: 3505/008 and 032 (2015-005848ENV)	The proposed project would demolish the existing UA Local 38 building (1621 Market Street), demolish the majority of the Lesser Brothers Building (1629–1645 Market Street), rehabilitate the Civic Center Hotel (1601 Market Street), and demolish the 242-space surface parking lots. In total, the project would construct five new buildings (ranging from four to 10 stories, 58 to 85-feet-tall). The project would include 477 market-rate residential units, 107 affordable supportive housing units. The project would also include the construction of 18,300-square-foot Brady Open Space at the northeast corner of Brady and Colton Streets. Within the new buildings there would be approximately 13,100 square feet of ground-floor retail/restaurant space.	Offsite Mitigated: 3.9 Onsite Mitigated: 6.3	Offsite Mitigated: 0.093 µg/m ³ Onsite Mitigated: 0.065 µg/m ³
2	1500 Mission Street (2014-000362ENV)	The project would demolish a 29,000 sf building and construct a mixed use development with 767,200 sf residential and retail/restaurant building. The project would include 560 dwelling units, 567,300 sf of office and a permit center.	Offsite Mitigated: 2.2 Onsite Resident Mitigated: 5.7 Onsite Child Mitigated: 1.4	Offsite Mitigated: 0.012 µg/m ³ Onsite Resident Mitigated: 0.010 µg/m ³ Onsite Child Mitigated: 0.0056 µg/m ³
6	10 South Van Ness Avenue (2015-004568ENV)	The project site is occupied by a two-story, 30- to 45-foot-tall building, and a small vacant lot. The project would demolish the existing building and construct a mixed-use residential building, with up to 984 residential units, retail space on the ground floor, and two below-grade levels for parking and loading activities (up to 518 vehicle parking spaces and seven freight loading spaces) accessed from a single curb cut and driveway on 12th Street.	Offsite Mitigated: 6.39 Onsite Mitigated: 2.43	Offsite Mitigated: 0.1 µg/m ³ Onsite Mitigated: 0.08 µg/m ³

Table 3.D-18, Cumulative (2040) + Hub Plan Cancer Risk at the Hub Plan Maximally Exposed Individual Sensitive Receptor, summarizes the cumulative cancer risk and **Table 3.D-19**, p. 3.D-100, Cumulative (2040) + Hub Plan PM_{2.5} Concentration at the Hub Plan Maximally Exposed Individual Sensitive Receptor, summarizes the cumulative PM_{2.5} concentration at the Hub Plan MEISR.

As shown in **Table 3.D-18**, under the unmitigated scenario, cumulative lifetime cancer risk at the maximally exposed sensitive receptor would be 303 in 1 million and as shown in **Table 3.D-19**, p. 3.D-100, the PM_{2.5} concentration would be 9.5 µg/m³. Because, under the unmitigated scenario, the cumulative lifetime cancer risk level of 90 in 1 million would be exceeded and because PM_{2.5} levels would exceed 9.0 µg/m³ within a health vulnerable zip code, the Hub Plan, in combination with existing background risks and cumulative development projects, would result in significant cumulative health risk impacts.

Hub Plan Contribution

The Hub Plan and subsequent development projects, including projects at 30 Van Ness Avenue and 98 Franklin Street, would emit TACs and PM_{2.5} as a result of vehicle trips, stationary sources, and construction activities. The Cumulative (2040) + Hub Plan scenario evaluated the impact from the Hub Plan in conjunction with the anticipated cumulative growth under 2040 conditions.

For the unmitigated scenario, the maximum cancer risk attributable to the Hub Plan would be 217 in 1 million. The breakdown of individual sources contributing to the cancer risk would be:

- 30 Van Ness Avenue Project construction would contribute 201 in 1 million
- 98 Franklin Street Project construction would contribute 2.4 in 1 million
- Emergency generators at the 11 sites, including the two individual project sites, would contribute 13 in 1 million
- Hub Plan 2040 traffic would contribute 1.5 in 1 million

Additionally, for the unmitigated scenario, the maximum PM_{2.5} concentration attributable to the Hub Plan would be 0.64 µg/m³. The breakdown of individual sources contributing to the cancer risk would be as follows:

- 30 Van Ness Avenue Project construction would contribute 0.59 µg/m³
- 98 Franklin Street Project construction would contribute 0.010 µg/m³
- Emergency generators at the 11 sites, including the two individual project sites, would contribute 0.0077 µg/m³
- Hub Plan 2040 traffic would contribute 0.0028 µg/m³

TABLE 3.D-18. CUMULATIVE (2040) + HUB PLAN CANCER RISK AT THE HUB PLAN MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category		Cancer Risk (per 1 million persons exposed)	
		Unmitigated	Mitigated
Hub Plan Cancer Risk Contributions			
Construction of Hub Projects	30 Van Ness Avenue Project	201	0.26
	98 Franklin Street Project	2.4	1.7
Generators ¹		13	24
Hub Plan 2040 Traffic		1.5	2.1
Total Project or Hub Plan Contribution		217	28
Significance threshold for Hub Plan cancer risk contribution within an APEZ		7	7
Significant?		Yes	Yes
Cumulative (2040) No Hub Plan Cancer Risk Contributions			
Cumulative (2040) No Hub Plan Traffic		43	42
Rail Sources		0.80	0.85
Maritime Sources		37	35
Existing Stationary Sources		4.9	4.7
Total Cancer Risk at MEISR		303	111

Source: Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects*, San Francisco, California, July 10, 2019.

Note:

¹ Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are added to ground-level impacts from construction and traffic.

TABLE 3.D-19. CUMULATIVE (2040) + HUB PLAN PM_{2.5} CONCENTRATION AT THE HUB PLAN MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	PM _{2.5} Concentration (µg/m ³)		
	Unmitigated	Mitigated	
Hub Plan PM_{2.5} Contributions			
Construction of Hub Projects	30 Van Ness Avenue Project	0.59	2.5E-05
	98 Franklin Street Project	0.010	5.4E-05
Generators ¹		0.0077	7.0E-04
Hub Plan 2040 Traffic		0.028	0.13
Total Project or Hub Plan Contribution		0.64	0.13
Significance threshold for Hub Plan PM _{2.5} contribution within an APEZ		0.2	0.2
Significant?		Yes	Yes
Cumulative (2040) No Hub Plan PM_{2.5} Contribution			
Cumulative (2040) No Hub Plan Traffic		0.9	2.4
Rail Sources		0.0015	0.0031
Maritime Sources		0.048	0.045
Existing Stationary Sources		0.049	0.029
Background Concentration ²		7.8	7.8
Total PM _{2.5} Concentration at MEISR		9.5	10.4

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

1. Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.
2. The background PM_{2.5} concentration is the average annual monitored PM_{2.5} concentration from the air district's 16th and Arkansas Street monitoring station.

Given that cancer risk (under the unmitigated scenario⁷²) from all Hub Plan sources would increase by as much as 217 in 1 million and PM_{2.5} concentration would increase by up to 0.64 µg/m³ at individual receptor points, the Hub Plan would exceed the thresholds of seven in 1 million for cancer risk and 0.2 µg/m³ for PM_{2.5} contribution. Therefore, the implementation of the Hub Plan and subsequent projects (inclusive of individual development projects at 30 Van Ness Avenue and 98 Franklin Street), would result in a considerable contribution to a significant cumulative impact related to exposure of sensitive receptors to substantial levels of toxic air contaminants.

⁷² The unmitigated scenario evaluated health risks associated with operation of Hub Plan-level generators without any controls and from construction equipment for the construction of the two individual projects at 30 Van Ness Avenue and 98 Franklin Streets operating without any control measures. For the unmitigated scenarios, generators and diesel-powered construction equipment were assumed to operate with fleet-average emission factors consistent with default assumptions in the California Emissions Estimator Model version 2016.3.2 (CalEEMod®).

Figure 3.D-3, p. 3.D-75, depicts the parcels within the Hub Plan area that currently meet APEZ criteria under existing conditions. Overlaid on this figure are parcels within the Hub Plan area that would meet APEZ criteria with the implementation of the Hub Plan and individual projects at 30 Van Ness Avenue and 98 Franklin Street under cumulative 2040 conditions.

Regulations discussed above under Impacts AQ-5 and AQ-7 would be applicable to subsequent projects implemented under the Hub Plan. Among those regulations is the requirement for subsequent projects to prepare a TDM plan, which would reduce vehicle emissions through TDM and other measures. Additionally, the planning code contains requirements applicable to individual development projects that would serve to reduce vehicle trips, compared to conditions without such requirements. Section 421 of the City's Environment Code mandates that larger employers provide transit, transit passes, or financial incentives for transit use (section 421), which also has the potential to reduce vehicle travel. Additionally, the San Francisco General Plan and the City Charter contain numerous policy directives aimed at reducing auto trips, not the least of which is the City's Transit First Policy (section 16.102 of the charter). However, the efficacy of these measures to reduce tailpipe emissions cannot be quantified because it is uncertain the degree to which these measures would reduce the number of vehicle trips. Furthermore, vehicle emissions themselves are regulated at the state and federal levels. Therefore, the Hub Plan would significantly affect both the geography and severity of health risks within the Hub Plan area under 2040 cumulative conditions, resulting in a considerable contribution to cumulative health risk impacts.

The proposed streetscape and street network improvements would be required to comply with the Clean Construction Ordinance, which would reduce construction-related diesel emissions by 89 to 95 percent, as discussed in Impact AQ-8. Compliance with the Clean Construction Ordinance would ensure that construction impacts from streetscape and street network improvements would be less than cumulatively considerable and therefore *less than significant*.

Mitigation Measures

Implement Mitigation Measures M-AQ-4b, M-AQ-5c, M-AQ-7a, M-AQ-7b, M-AQ-7c, M-AQ-7d, and M-AQ-7e.

Significance after Mitigation

As described above in Impact AQ-7, subsequent development under the Hub Plan would result in construction activities that could expose sensitive receptors to substantial levels of fine particulate matter and TACs generated by construction equipment, particularly from diesel emissions. However, implementation of Mitigation Measure M-AQ-7d would require all projects within the APEZ and newly added APEZ lots identified in **Figure 3.D-3**, p. 3.D-75, to comply with Mitigation Measure M-AQ-4b, Requirement for Construction Emissions Minimization Plan for Projects That Would Not Meet Screening Levels or Would Exceed Criteria Air Pollutant Significance Thresholds or Required in Impact AQ-7. This would reduce construction diesel emissions by 89 to 95 percent. Furthermore all subsequent development projects that propose

new sources of TACs, including diesel generators and fire pumps would be required to comply with M-AQ-5c, Requirements for Best Available Control Technology for Projects with Diesel Generators and Fire Pumps, M-AQ-7b, Requirement for Air Quality Analysis That Considers the Siting of Uses That Emit Particulate Matter (PM_{2.5}), Diesel Particulate Matter, or Other Toxic Air Contaminants, and M-AQ-7c, Measures to Include Land Use Buffers Around Active Loading Docks.

The effectiveness of the above mitigation measures were quantitatively evaluated. **Table 3.D-18** and **Table 3.D-19**, pp. 3.D-98 and 3.D-99, summarize the results from the mitigated scenario for cancer risk and PM_{2.5} concentration, respectively. The mitigated scenarios were evaluated assuming mitigated construction equipment for construction of the 30 Van Ness Avenue Project (certain diesel-powered equipment was assumed to use non-diesel fuel or electricity). As shown in **Table 3.D-18**, p. 3.D-98, in the mitigated column, implementation of these mitigation measures would reduce Hub Plan's contribution to cancer risk levels at the MEISR to 28 per 1 million persons exposed, which would still be above the significance threshold of seven per 1 million persons exposed. Therefore, even with implementation of these mitigation measures, the Hub Plan's contribution under the 2040 cumulative conditions would be cumulatively considerable. It is noted that the Hub Plan's contribution could be higher than reported in **Table 3.D-18** and **Table 3.D-19**, pp. 3.D-98 and 3.D-99, because construction impacts from subsequent development projects cannot be reasonably factored into these numbers. Therefore, although **Table 3.D-19** p. 3.D-99, shows that the Hub Plan's contribution to PM_{2.5} concentrations are 0.13 µg/m³, which is below the significance threshold of 0.2 µg/m³, because additional construction emissions are likely and given the uncertainty associated with timing, duration, and intensity of constructing subsequent development projects, it is possible that sensitive receptors could be exposed to construction emissions from multiple development projects occurring at the same time, which could result in an exceedance of the PM_{2.5} threshold even with implementation of M-AQ-4b. Based on the above, PM_{2.5} emissions and cancer risk impacts generated by development occurring pursuant to the Hub Plan under 2040 cumulative conditions would be cumulatively considerable and this impact would be *significant and unavoidable with mitigation*.

Impact C-AQ-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions. (Less than Significant with Mitigation)

A cumulative health risk analysis was conducted for each of the individual projects at 30 Van Ness Avenue and 98 Franklin Streets. The cumulative analysis includes all of the same sources modeled under Impact C-AQ-1, but results are presented for the MEISR where each project would result in the maximum health risk impact. For the cumulative (2040) scenario at the 30 Van Ness Avenue Project and 98 Franklin Street Project MEISRs, the locations of the onsite and offsite

MEISRs would not change between the mitigated and unmitigated scenarios. However, the contribution of plan-level impacts at the MEISR would change between the mitigated and unmitigated scenarios once plan-level and project mitigation measures are taken into account. The MEISRs were determined by identifying the receptors with the maximum impact from all project-level sources in 2040.

As discussed above, under Impact C-AQ-1, the Hub Plan (including the individual projects), in combination with existing background risks and cumulative development projects, would result in significant cumulative health risk impacts for both cancer risk and PM_{2.5} concentrations. This is because, under the unmitigated scenario, cumulative lifetime cancer risk at the maximally exposed sensitive receptor would be 303 in 1 million, and the PM_{2.5} concentration would be 9.56 µg/m³. Thus, the following impact discussions focus on *contributions* to this cumulative impact from individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

30 Van Ness Avenue Project

The Cumulative (2040) + 30 Van Ness Avenue Project scenario analyzed the impacts from the 30 Van Ness Avenue Project combined with the impacts from the Cumulative (2040) with Hub Plan scenario. The cumulative (2040) + 30 Van Ness Avenue Project scenario included all of the emissions sources evaluated for the cumulative (2040) + Hub Plan scenario because the Hub Plan scenario also includes the individual projects at 30 Van Ness Avenue and 98 Franklin Street. However, as noted above, in order to determine each project's contribution to cumulative impacts, the cumulative analysis was conducted at each project's MEISR.

The cumulative (2040) with Hub Plan + 30 Van Ness Avenue Project scenario was evaluated for an unmitigated scenario and a mitigated scenario, as shown in **Tables 3.D-20** and **Table 3.D-21**, p. 3.D-105.

TABLE 3.D-20. CUMULATIVE (2040) CANCER RISK AT THE 30 VAN NESS AVENUE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Source Category	Cancer Risk (per 1 million persons exposed)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
30 Van Ness Avenue Project Contributions				
30 Van Ness Avenue Project Construction ¹	201	4.4	--	--
30 Van Ness Avenue Project Generators ²	0.90	0.12	21	2.9
30 Van Ness Avenue Project Traffic	0.026	0.026	0.030	0.030
Total Project Contribution	202	4.5	22	2.9
Cumulative (2040) Sources				
Cumulative (2040) No Hub Plan Traffic	43	43	45	45
Rail Sources	0.80	0.80	0.78	0.78
Maritime Sources	37	37	37	37
Existing Stationary Sources	4.9	4.9	4.7	4.7
2040 Hub Plan Generators ³	11	1.5	9.2	1.2
2040 Hub Plan Traffic	1.5	1.5	1.8	1.8
98 Franklin Street Project Construction ⁴	2.4	0.19	0	0
98 Franklin Street Project Operations	0.69	0.10	0.55	0.080
Total Cancer Risk at MEISR	303	93	120	93

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

1. Onsite receptors are not exposed to construction emissions.
2. Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.
3. The 2040 plan traffic and generators reported in the cumulative (2040) sources do not include the contribution of the cancer risk associated with traffic and generators from the individual projects.
4. Because the 98 Franklin Street Project construction is expected to be complete before the 30 Van Ness Avenue Project, it is not expected that the 30 Van Ness Avenue Project's onsite residents would be exposed to health impacts from construction of the 98 Franklin Street Project.

TABLE 3.D-21. CUMULATIVE (2040) PM_{2.5} CONCENTRATION AT THE 30 VAN NESS AVENUE MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	PM _{2.5} Concentration (µg/m ³)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
30 Van Ness Avenue Project Contributions				
30 Van Ness Avenue Project Construction ¹	0.59	0.020	--	--
30 Van Ness Avenue Project Generators ²	0.0024	3.1E-04	0.029	0.0038
30 Van Ness Avenue Project Traffic	4.7E-04	4.7E-04	5.6E-04	5.6E-04
Total Project Contribution	0.60	0.021	0.029	0.0044
Cumulative (2040) Sources				
Cumulative (2040) No Hub Plan Traffic	0.94	0.94	1.1	1.1
Rail Sources	0.0015	0.0015	0.0015	0.0015
Maritime Sources	0.048	0.048	0.048	0.048
Existing Stationary Sources	0.049	0.049	0.048	0.048
Background Concentration ³	7.8	7.8	7.8	7.8
2040 Hub Plan Generators ⁴	0.0035	4.7E-04	0.0028	3.7E-04
2040 Hub Plan Traffic	0.027	0.027	0.033	0.033
98 Franklin Street Project Construction ⁵	0.010	0.0011	0	0
98 Franklin Street Project Operations	0.0019	3.7E-04	8.8E-04	2.4E-04
Total PM _{2.5} Concentration at MEISR	9.5	7.9	8.0	7.9

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, July 10, 2019.

Notes:

1. Onsite receptors are not exposed to construction emissions.
2. Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.
3. The background PM_{2.5} concentration is the average annual monitored PM_{2.5} concentration from the air district's 16th and Arkansas Street monitoring station.
4. The 2040 plan traffic and generators reported in the cumulative (2040) sources do not include the traffic and generators from the two individual projects.
5. Because the 98 Franklin Street Project construction is expected to be complete before the 30 Van Ness Avenue Project, it is not expected that the 30 Van Ness Avenue Project's onsite residents would be exposed to health impacts from construction of the 98 Franklin Street Project.

The 30 Van Ness Avenue Project generator emissions and construction emissions would be the same as evaluated under Impact AQ-9. The operational traffic emissions from the 30 Van Ness Avenue Project were estimated using the same methodology as in the Baseline (2020) + 30 Van Ness Avenue Project scenario but using Hub Plan 2040 traffic instead of Hub Plan 2020 traffic as the basis for the proportional traffic emissions analysis used in the risk assessment.

Following the determination of the MEISR from Project-only impacts, the results from the Cumulative (2040) with Hub Plan scenario were added to understand the overall health risk impacts at each receptor.

Cancer Risk

For the offsite MEISR, the cancer risk contribution from construction and operation associated with 30 Van Ness Avenue for the unmitigated scenario⁷³ would be 202 in 1 million, as shown in the “Total Project Contribution” row of **Table 3.D-20**, p. 3.D-104. The breakdown of individual sources contributing to these health risks would be as follows:

- 30 Van Ness Avenue Project construction would contribute 201 in 1 million
- 30 Van Ness Avenue Project generators would contribute 0.90 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 0.026 in 1 million

For the onsite MEISR, which would not be exposed to the 30 Van Ness Avenue Project construction emissions, the cancer risk contribution from the unmitigated operation of 30 Van Ness Avenue would be 22 in 1 million, as shown in **Table 3.D-20**, p. 3.D-103. The breakdown of individual sources contributing to these health risks would be as follows:

- 30 Van Ness Avenue Project generators would contribute 21 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 0.030 in 1 million

As shown in the **Table 3.D-20**, p. 3.D-104, the project’s contribution to cancer risk at onsite and offsite receptors would exceed the significance threshold of seven in 1 million persons exposed, resulting in a *significant impact*.

Mitigation Measures

Implementation of Mitigation Measure M-AQ-9a: Requirement for Construction Emissions Minimization Plan for 30 Van Ness Avenue Project, and Mitigation Measure M-AQ-9b: Requirement for Best Available Control Technology for Diesel Generators for 30 Van Ness Avenue Project, discussed under Impact AQ-9, above, would be required to reduce the cancer risk.

Significance After Mitigation

As noted above in those discussions, generators with Tier 4 engines emit 75 to 85 percent fewer DPM and PM_{2.5} emissions than Tier 2 engines, while emissions of diesel particulate matter can be

⁷³ The unmitigated scenario was evaluated assuming no control measures for the diesel-powered construction equipment and generators. Fleet average emission factors consistent with default assumptions of CalEEMod® 2016.3.2 were used.

reduced by 89 to 94 percent with Level 3 VDECS compared to equipment with engines meeting no emission standards.

Table 3.D-20, p. 3.D-104, summarizes the results from the mitigated scenarios for both offsite and onsite MEISRs, which were evaluated assuming generators and diesel-powered construction equipment would meet Tier 4 standards or equivalent. Additionally, the generators at the 30 Van Ness Avenue project site were assumed to operate for up to 20 permitted hours per year as part of this mitigation measure. For construction equipment, certain diesel-powered equipment was assumed to use non-diesel fuel (i.e., propane) or electricity. As shown in **Table 3.D-20**, p. 3.D-104, in the mitigated columns, implementation of these mitigation measures would reduce cancer risk contributions from the project at both offsite and onsite MEISRs to 4.5 and 2.9 per 1 million persons exposed, respectively. Therefore, because the mitigated cancer risk would be below seven per 1 million persons exposed, the cancer risk impact would be reduced to a *less-than-significant* level.

PM_{2.5} Concentration

For the offsite MEISR, the maximum PM_{2.5} concentration contribution from construction and operation for the uncontrolled scenario would be 0.60 µg/m³, as shown in the “Total Project Contribution” row of **Table 3.D-21**, p. 3.D-105. The breakdown of individual sources contributing to these health risks would be as follows:

- 30 Van Ness Avenue Project construction would contribute 0.59 µg/m³
- 30 Van Ness Avenue Project generators would contribute 0.0024 µg/m³
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 0.00047 µg/m³

For the onsite MEISR, which would not be exposed to the 30 Van Ness Avenue Project construction emissions, the PM_{2.5} concentration contribution from unmitigated operation would be 0.029 µg/m³, as shown in **Table 3.D-21**, p. 3.D-105. The breakdown of individual sources contributing to these health risks would be as follows:

- 30 Van Ness Avenue Project generators would contribute 0.029 µg/m³ for
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 30 Van Ness Avenue Project would contribute 0.00056 µg/m³

As shown in **Table 3.D-21**, p. 3.D-105, the project’s contribution to PM_{2.5} concentration at offsite receptors (only) would exceed the significance threshold of 0.2 µg/m, resulting in a *significant impact*.

Mitigation Measures

Implementation of Mitigation Measures M-AQ-9a, Requirement for Construction Emissions Minimization Plan for 30 Van Ness Avenue Project, and M-AQ-9b, Requirement for Best

Available Control Technology for Diesel Generators for 30 Van Ness Avenue Project, discussed under Impact AQ-9, would be required to reduce the PM_{2.5} concentration.

Significance After Mitigation

As shown in **Table 3.D-21**, p. 3.D-105, in the mitigated columns, implementation of these mitigation measures would reduce PM_{2.5} levels at both offsite and onsite MEISRs to 0.021 µg/m³ and 0.0044 µg/m³, respectively. Therefore, because the mitigated cancer risk would be below the significance threshold of 0.2 µg/m, the PM_{2.5} concentration impact would be reduced to a *less-than-significant* level.

98 Franklin Street Project

The cumulative (2040) + 98 Franklin Street Project scenario analyzed the impacts from the 98 Franklin Street Project combined with the impacts from the cumulative (2040) with Hub Plan scenario. The cumulative (2040) + 98 Franklin Street Project scenario included all of the emissions sources evaluated for the cumulative (2040) + Hub Plan scenario because the Hub Plan scenario also includes the individual projects at 30 Van Ness Avenue and 98 Franklin Street. However, as noted above, in order to determine each project's maximum contribution to cumulative impacts, the cumulative analysis was conducted at each project's MEISR.

The cumulative (2040) with Hub Plan + 98 Franklin Street Project scenario was evaluated for an unmitigated scenario and a mitigated scenario, as shown in **Tables 3.D-22** and **Table 3.D-23**, p. 3.D-110.

The 98 Franklin Street Project generator emissions and construction emissions are the same as evaluated under Impact AQ-9. The operational traffic emissions from the 98 Franklin Street Project are estimated using the same methodology as in the Baseline (2020) + 98 Franklin Street Project scenario but using Hub Plan 2040 traffic instead of Hub Plan 2020 traffic as the basis for the proportional traffic emissions analysis used in the risk assessment.

Following the determination of the MEISR from Project-only impacts, the results from the Cumulative (2040) with Hub Plan scenario were added to understand the overall health risk impacts at each receptor.

Cancer Risk

For the offsite MEISR, the cancer risk contribution from construction and operation associated with 98 Franklin Street for the unmitigated scenario⁷⁴ would be 72 in 1 million, as shown in the

⁷⁴ The unmitigated scenario was evaluated assuming no control measures for the diesel-powered construction equipment and generators. Fleet average emission factors consistent with default assumptions of CalEEMod® 2016.3.2 were used.

“Total Project Contribution” row of **Table 3.D-22**. The breakdown of individual sources contributing to these health risks would be as follows:

- 98 Franklin Street Project construction would contribute 70 in 1 million
- 98 Franklin Street Project generators would contribute 1.6 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 0.063 in 1 million

TABLE 3.D-22. CUMULATIVE (2040) CANCER RISK AT THE 98 FRANKLIN STREET MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	Cancer Risk (per 1 million persons exposed)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
98 Franklin Street Project Contributions				
98 Franklin Street Project Construction ¹	70	5.6	--	--
98 Franklin Street Project Generators ²	1.6	0.22	6.1	0.82
98 Franklin Street Project Traffic	0.0063	0.063	0.056	0.0056
Total Project Contribution	72	5.8	6.2	0.82
Cumulative (2040) Sources				
Cumulative (2040) No Hub Plan Traffic	40	40	41	41
Rail Sources	0.84	0.84	0.83	0.83
Maritime Sources	35	35	35	35
Existing Stationary Sources	4.3	4.3	4.1	4.1
2040 Hub Plan Generators ³	11	1.5	11	1.4
2040 Hub Plan Traffic ³	1.4	1.4	1.2	1.2
30 Van Ness Avenue Project Construction	7.4	0.16	0.63	0.018
30 Van Ness Avenue Project Operations	1.0	0.15	0.89	0.14
Total Cancer Risk at MEISR	173	89	100	84

Source: Ramboll US Corporation, *Air Quality Technical Report, Hub Plan and Individual Projects*, San Francisco, California, July 10, 2019.

Notes:

1. Onsite receptors are not exposed to construction emissions.
2. Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.
3. The 2040 plan traffic and generators reported in the cumulative (2040) sources do not include the traffic and generators from the two individual projects.

TABLE 3.D-23. CUMULATIVE (2040) PM_{2.5} CONCENTRATION AT THE 98 FRANKLIN STREET MAXIMALLY EXPOSED INDIVIDUAL SENSITIVE RECEPTOR

Emissions Source Category	PM _{2.5} Concentration (µg/m ³)			
	Offsite MEISR		Onsite MEISR	
	Unmitigated	Mitigated	Unmitigated	Mitigated
98 Franklin Street Project Contributions				
98 Franklin Street Project Construction ¹	0.28	0.032	--	--
98 Franklin Street Project Generators ²	0.0024	3.2E-04	0.0083	0.0011
98 Franklin Street Project Traffic	1.2E-04	1.2E-04	1.1E-04	1.1E-04
Total Project or Hub Plan Contribution	0.29	0.032	0.0084	0.0012
Cumulative (2040) Sources				
Cumulative (2040) No Hub Plan Traffic	0.89	0.89	0.94	0.94
Rail Sources	0.0016	0.0016	0.0016	0.0016
Maritime Sources	0.046	0.046	0.045	0.045
Existing Stationary Sources	0.044	0.044	0.043	0.043
Background Concentration ³	7.8	7.8	7.8	7.8
2040 Hub Plan Generators 4	0.0076	0.0010	0.0051	6.9E-04
2040 Hub Plan Traffic 4	0.026	0.026	0.023	0.023
30 Van Ness Avenue Project Construction	0.022	7.5E-04	0.0089	5.3E-04
30 Van Ness Avenue Project Operations	0.0030	7.9E-04	0.0016	5.6E-04
Total PM _{2.5} Concentration at MEISR	8.2	8.0	7.9	7.9

Source: Ramboll US Corporation, Air Quality Technical Report, Hub Plan and Individual Projects, San Francisco, California, [date].

1. Onsite receptors are not exposed to construction emissions.
2. Generator impacts were evaluated at varying elevations to capture the maximum impacts from generators located above ground. These results are conservatively added to ground level impacts from construction and traffic.
3. The background PM_{2.5} concentration is the average annual monitored PM_{2.5} concentration from the air district's 16th and Arkansas Street monitoring station.
4. The 2040 plan traffic and generators reported in the cumulative (2040) sources do not include the traffic and generators from the two individual projects.

For the onsite MEISR, which would not be exposed to the 98 Franklin Street Project construction emissions, the cancer risk contribution from the unmitigated operation would be 6.2 in 1 million, as shown in **Table 3.D-22**, p. 3.D-109. The breakdown of individual sources contributing to these health risks would be as follows:

- 98 Franklin Street Project generators would contribute 6.1 in 1 million
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 0.0056 in 1 million

As shown in **Table 3.D-22**, p. 3.D-109, the project's contribution to cancer risk at offsite receptors (only) would exceed the significance threshold of seven per 1 million persons exposed, resulting in a *significant impact*.

Mitigation Measures

Implementation of Mitigation Measure M-AQ-9c, discussed under Impact AQ-9, and Mitigation Measure M-AQ-5c, discussed under Impact AQ-5, would be required to reduce the cancer risk.

Significance After Mitigation

As noted above in those discussions, generators with Tier 4 engines emit 75 to 85 percent fewer DPM and PM_{2.5} emissions than Tier 2 engines, while emissions of diesel particulate matter can be reduced by 89 to 94 percent with Level 3 VDECS compared to equipment with engines meeting no emission standards.

Table 3.D-22, p. 3.D-109, summarizes the results from the mitigated scenarios for both offsite and onsite MEISRs, which were evaluated assuming generators and diesel-powered construction equipment would meet Tier 4 standards or equivalent. For construction equipment, certain diesel-powered equipment was assumed to use non-diesel fuel (i.e., propane) or electricity. As shown in **Table 3.D-22**, p. 3.D-109, in the mitigated columns, implementation of these mitigation measures would reduce the project's contribution to cancer risk levels at offsite MEISRs to 5.8 and 0.82 per 1 million persons exposed, respectively. Therefore, because the mitigated cancer risk would be below seven per 1 million persons exposed, the cancer risk impact would be reduced to a *less-than-significant* level.

PM_{2.5} Concentration

For the offsite MEISR, the maximum PM_{2.5} concentration contribution from construction and operation for the unmitigated scenario would be 0.29 µg/m³, as shown in the "Total Project Contribution" row of **Table 3.D-23**, p. 3.D-110. The breakdown of individual sources contributing to these health risks would be as follows:

- 98 Franklin Street Project construction would contribute 0.28 µg/m³
- 98 Franklin Street Project generators would contribute 0.0024 µg/m³
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute 0.000012 µg/m³

For the onsite MEISR, which would not be exposed to the 98 Franklin Street Project construction emissions, the PM_{2.5} concentration contribution from unmitigated operation would be 0.0084

$\mu\text{g}/\text{m}^3$, as shown in **Table 3.D-23**, p. 3.D-110. The breakdown of individual sources contributing to these health risks would be as follows:

- 98 Franklin Street Project generators would contribute $0.0083 \mu\text{g}/\text{m}^3$ for
- The proportion of Hub Plan-generated traffic estimated to be the direct result of the 98 Franklin Street Project would contribute $0.00011 \mu\text{g}/\text{m}^3$

As shown in **Table 3.D-23**, p. 3.D-110, the project's contribution to $\text{PM}_{2.5}$ concentrations at offsite receptors (only) would exceed the significance threshold of $0.2 \mu\text{g}/\text{m}$, resulting in a *significant impact*.

Mitigation Measures

Implementation of Mitigation Measure M-AQ-9c, discussed under Impact AQ-9, and Mitigation Measure M-AQ-5c, discussed under Impact AQ-5, would be required to reduce the $\text{PM}_{2.5}$ concentration.

Significance After Mitigation

As shown in **Table 3.D-23**, p. 3.D-110, in the mitigated columns, implementation of these mitigation measures would reduce the project's $\text{PM}_{2.5}$ contribution to both offsite and onsite MEISRs to $0.032 \mu\text{g}/\text{m}^3$ and $0.0012 \mu\text{g}/\text{m}^3$, respectively. Therefore, because the mitigated $\text{PM}_{2.5}$ concentration would be below the significance threshold of $0.2 \mu\text{g}/\text{m}$, the $\text{PM}_{2.5}$ concentration impact would be reduced to a *less-than-significant* level.

3.E WIND

This section of the EIR analyzes potential wind impacts that could occur as a result of the Hub Plan,¹ the two individual development projects, the Hub Housing Sustainability District (HSD), and cumulative conditions. The analysis assesses the potential for implementation of the Hub Plan, two individual development projects, and Hub HSD to adversely affect existing wind patterns compared to existing conditions and under cumulative conditions. The section discusses the environmental setting, regulatory framework, environmental impacts, and mitigation measures for wind.

This section describes potential wind impacts on areas where people walk such as sidewalks and plazas, focusing on comfort and safety for people walking. Various wind-tunnel tests were conducted to generally define the wind environment for people walking that currently exists and would exist with implementation of the Hub Plan, two individual development projects, and Hub HSD. The plan-level and cumulative wind analyses in this section are based on the *Market/Octavia Hub Plan Pedestrian Wind Study*,² the *170 Otis Street Design Change Wind Memorandum*,³ and the *Market/Octavia Hub Plan Memorandum*⁴ prepared by Rowan Williams Davies & Irwin Inc. (RWDI). The project-level wind analyses are based on the *30 Van Ness Pedestrian Wind Study*⁵ and the *30 Van Ness Avenue Design Change Wind Memorandum*⁶ prepared by RWDI and the *98 Franklin Street Wind Microclimate Study*⁷ and the *98 Franklin Street Wind Study Memorandum*⁸ prepared by BMT. The wind studies are included as Appendix G-1 through G-7.

Issues related to the proposed project's physical environmental impacts, identified in response to the notice of preparation (NOP) (Appendix A), were considered in preparing this analysis. The City and County of San Francisco (City) received three NOP comments related to wind. Issues of concern included wind impacts on people walking and people biking and wind mitigation.

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

² RWDI, *Market/Octavia Hub Plan Pedestrian Wind Study*, final report, January 18, 2019.

³ RWDI, *170 Otis Street Design Change Wind Memorandum*, final memorandum, May 21, 2019.

⁴ RWDI, *Market/Octavia Hub Plan Memorandum*, final memorandum, June 3, 2019.

⁵ RWDI, *30 Van Ness Pedestrian Wind Study*, final report, March 12, 2019.

⁶ RWDI, *30 Van Ness Pedestrian-Level Wind Study – Comments on Design Change Memorandum*, final, June 26, 2019.

⁷ BMT, *98 Franklin Street Wind Microclimate Study*, final report, February 8, 2019.

⁸ BMT, *98 Franklin Street Wind Study Memorandum*, final memorandum, 2019.

ENVIRONMENTAL SETTING

SAN FRANCISCO'S EXISTING CLIMATE AND WIND ENVIRONMENT

Generally, winds in San Francisco originate on the Pacific Ocean and blow through the city in an easterly direction. Average wind speeds are highest in the summer and lowest in the winter. However, the strongest peak winds occur during the winter. The highest average wind speeds occur during the mid-afternoon, and the lowest wind speeds occur during the morning. The winds that are most prevalent in San Francisco are those from the northwest, west-northwest, west, and west-southwest.

A building's exposure, massing, and orientation affect nearby ground-level wind accelerations. Exposure is a measure of the degree to which a building extends above surrounding structures into the wind stream. A building surrounded by taller structures is unlikely to cause adverse wind accelerations at ground level, while even a small building can cause wind acceleration if it is freestanding and exposed. Groups of structures tend to slow the winds near ground level because of the friction and drag of the structures themselves on the winds. Buildings that are much taller than the surrounding buildings intercept and redirect winds that might otherwise flow overhead and bring them down the vertical face of the building to ground level where they create ground-level wind and turbulence. These redirected winds can be relatively strong, as well as relatively turbulent, and incompatible with the intended uses of nearby ground-level spaces, depending on the level and type of use for people walking.

Massing affects how much wind a building intercepts and whether wind accelerations occur at ground level. In general, rectangular buildings (oriented perpendicular to the prevailing wind direction) have the greatest potential for wind acceleration, and buildings with a more curvilinear shape or setbacks have a lesser effect. Building orientation also affects the amount of wind a structure intercepts and the corresponding extent of wind acceleration. Buildings with a wide base or façade, perpendicular to prevailing winds, will generally cause greater ground-level wind acceleration. Moreover, structure designs that present tall, flat, rectangular surfaces that are square to strong winds can create strong ground-level winds. Conversely, a building with a height that is similar to the heights of surrounding buildings typically would cause little or no additional ground-level wind acceleration and turbulence. Thus, wind impacts are generally caused by large building masses that extend substantially above their surroundings and buildings that are oriented so that a large wall could catch a prevailing wind, particularly if such a wall includes little or no articulation.⁹ In general, new buildings that are less than 80 feet in height are unlikely to result in substantial adverse effects on ground-level winds such that people walking would be uncomfortable. Such winds may occur under existing conditions, but shorter buildings typically do not cause substantial changes in ground-level winds.

⁹ Building articulation refers to architectural design elements on a structure that contribute to the public streetscape.

The comfort of people walking varies under different conditions (e.g., variations in sun exposure, temperature, wind speed). Winds of up to 4 miles per hour (mph) have no noticeable effect on comfort for people walking. With velocities between 4 and 8 mph, wind is often noticeably felt on the face. Winds between 8 and 13 mph will disturb hair, cause clothing to flap, and extend a light flag mounted on a pole, while winds between 13 and 19 mph will raise loose paper, dust, and dry soil, and disarrange hair. For wind velocities between 19 and 26 mph, the force of the wind will noticeably push against the body. At 26 to 34 mph, umbrellas are used with difficulty, hair is blown straight, there is difficulty in walking steadily, and the wind noise is unpleasant. Winds of more than 34 mph can result in loss of balance, and gusts can blow people over.

WIND PATTERNS IN THE HUB PLAN AREA VICINITY

Prior experience with wind testing in the area indicates that the Hub Plan area is subject to patterns of strong winds. Both the upwind topography and the nearby buildings strongly influence wind conditions within the Hub Plan area. The wind patterns south of Market Street are strongly affected by the west, west-northwest, and northwest winds that approach over the street and building grid that exists north of Market Street. There, westerly winds, which are the most frequent and relatively strongest, align with and are channeled into the east/west-oriented streets north of Market Street and approach Market Street relatively unimpeded at the level of people walking. Similarly, the west-northwesterly winds are also channeled into the east/west-oriented streets, but their speeds tend to be reduced due to their greater misalignment with the street grid. However, both the west and the west-northwest winds, which, in combination, account for nearly half of the city's winds, contribute to the strong winds that flow along the east/west-oriented streets.

Northwest winds are impeded at the street level north of Market Street, due to their misalignment with the street grid, which is oriented nearly north/south and east/west; however, these winds continue to flow toward the Hub Plan area. Southwest winds are similarly impeded at street level; they also continue to flow above street level. Both northwest winds and southwest winds also contribute to winds along the east/west-oriented streets.

The street grid south of Market Street is offset from the north of Market Street grid by approximately 45 degrees. As a result, winds from the north and west either encounter the street wall (i.e., buildings) that redirects them along Market Street, or they encounter an intersection with streets perpendicular to Market Street (i.e., the numbered streets) that lead into the Hub Plan area. In the latter case, the wind flow divides, with some wind flowing along the northwest/southeast street and some wind flowing along Market Street.¹⁰

¹⁰ San Francisco convention, followed in this EIR, is to describe South of Market streets that are parallel to Market Street as east/west streets and streets perpendicular to Market Street as north/south streets. However, in discussing wind directions, true compass directions are used for clarity.

Wind flows along each of the northwest/southeast streets of the Hub Plan area are also directly generated by the northwest winds, which align with the grid south of Market Street and which can be brought to ground level and channeled into the northwest/southeast streets. Although misaligned with the street grid north of Market Street and diminished by passing through that area, the northwest winds are important in the Hub Plan area because they strike the faces of buildings on streets parallel to Market Street head-on and are redirected to the level of people walking by those buildings. Southwest winds also align with the Hub Plan area street grid, strike the faces of numbered-street buildings head-on, are redirected down to the level of people walking, and are channeled into southwest/northeast streets.

Unlike the northwest winds, southwest winds approach the Hub Plan area relatively unimpeded by similar parallel blocks of low-rise buildings (mostly two to four stories and no more than about 50 feet in height). While the relatively frequent west and west-northwest winds are not aligned with the grid and their speeds are therefore reduced, they can be brought down to the level of people walking by encountering taller buildings or by passing over vacant parcels of land. By both of these mechanisms, these winds directly and substantially contribute to winds at the level of people walking in the Hub Plan area.

REGULATORY FRAMEWORK

PLANNING CODE SECTION 148

San Francisco Planning Code section 148, Reduction of Ground-level Wind Currents in Downtown Commercial (C-3) Districts, specifically outlines wind reduction criteria for the C-3 District. Although some portions of the Hub Plan area are not located in a C-3 District,¹¹ the city uses the wind hazard criteria from planning code section 148 to evaluate the significance of wind impacts from all proposed projects for the purposes of the California Environmental Quality Act (CEQA). The wind studies prepared for the Hub Plan, two individual development projects (both of which are in a C-3 District), and Hub HSD were performed using wind testing analysis and evaluation methods to determine conformity with section 148 criteria.

The planning code establishes defined wind hazard and wind comfort criteria. The hazard criterion of 26 mph is based on winds that are measured for one hour and averaged. However, the wind speeds reported directly from available meteorological data have much shorter averaging periods, about one minute; therefore, the speed must be adjusted to correct for the difference between the one-hour and the one-minute averaging time. When adjusted to a one-minute averaging period, the hazard criterion speed is a one-minute average of 36 mph. The planning code defines these wind speeds in terms of “equivalent wind speeds” and

¹¹ Although some portions of the Hub Plan area are currently not located in the C-3 District, the Hub Plan would change all parcels to C-3, with the exception of some Public (P) parcels that would remain.

“average wind speed” (mean velocity), adjusted to include the level of gustiness and turbulence. The hazard criterion requires that the development not cause equivalent wind speeds¹² to exceed the hazard level of 26 mph, as averaged for a single full hour of the year.

The comfort criterion are based on wind speeds that are measured for one minute and averaged. The comfort criterion state that wind speeds will not exceed 11 mph in substantial use areas where people walk and 7 mph in public seating areas more than 10 percent of the time year-around between 7 a.m. and 6 p.m.¹³

When pre-existing ambient wind speeds exceed the comfort level, or when a proposed building or addition may cause ambient wind speeds to exceed the comfort level, the building shall be designed to reduce the ambient wind speeds to meet the requirements. An exception may be granted, in accordance with the provisions of section 309, allowing the building or addition to add to the amount of time that the comfort level is exceeded by the least practical amount if (1) it can be shown that a building or addition cannot be shaped and other wind-baffling measures cannot be adopted to meet the foregoing requirements without creating an unattractive and ungainly building form and without unduly restricting the development potential of the building site in question, and (2) it is concluded that, because of the limited amount by which the comfort level is exceeded, the limited location in which the comfort level is exceeded, or the limited time during which the comfort level is exceeded, the addition is insubstantial. No exception shall be granted and no building or addition shall be permitted that causes equivalent wind speeds to reach or exceed the hazard level of 26 miles per hour for a single hour of the year.

IMPACTS AND MITIGATION MEASURES

This section describes the impact analysis for the Hub Plan, the 30 Van Ness Avenue Project, and the 98 Franklin Street Project related to wind. It describes the methods used to determine the impacts of all of the project’s components and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany the discussion of each identified significant impact.

¹² The equivalent wind speeds were calculated according to the specifications in section 148, whereby the mean hourly wind speed is increased when the turbulence intensity is greater than 15 percent, according to the following formula:

where EWS = equivalent wind speed
 V_m = mean pedestrian-level wind speed
 TI = turbulence intensity

¹³ The wind comfort criterion are defined in terms of equivalent wind speed, which is the average wind speed (mean velocity) adjusted to include the level of gustiness and turbulence. Equivalent wind speed is defined as mean wind velocity multiplied by quantity (one plus three times the turbulence intensity) divided by 1.45. This calculation magnifies the reported wind speed when turbulence intensity is greater than 15 percent.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those already identified for the Hub Plan, and this project component is not discussed further.

SIGNIFICANCE CRITERIA

The following significance criterion is from Appendix B of the San Francisco Planning Department's (department) Environmental Review Guidelines (which is the department's Initial Study Checklist) and is used to determine the level of impact related to wind. For the purposes of this EIR, implementation of the Hub Plan and two individual development projects would have a significant effect with respect to the wind environment where people walk if it would:

- Create wind hazards in publicly accessible areas of substantial pedestrian use.

To assess whether a project would result in a significant impact under the CEQA significance criterion, the city uses the planning code's hazard criterion. That is, the city determines whether a project would cause equivalent wind speeds to reach or exceed the wind hazard criterion of 26 mph for a single hour of the year. If a project would cause a new wind hazard or exacerbate an existing wind hazard in a public area, it may result in a significant impact under CEQA. The department does not consider exceedances of the comfort criterion to be a significant impact for CEQA purposes. However, the wind studies assessed wind conditions related to the comfort criterion and the results of this assessment are summarized for informational purposes.

APPROACH TO ANALYSIS

Three separate primary studies were prepared for purpose of this analysis, *The Pedestrian Wind Study for the Hub Plan* (prepared by RWDI), the 30 Van Ness Pedestrian Wind Study (prepared by RWDI), and the 98 Franklin Street Wind Study Memorandum (prepared by BMT). In addition, RWDI prepared a memorandum that discusses potential wind impacts associated with buildings under 85 feet in height in the Hub Plan area. For the two individual projects that will be seeking project-level environmental clearance through this EIR (30 Van Ness Avenue and 98 Franklin Street), wind analyses for the modeled buildings were based on

current plans from the time when the analyses were performed. For all other projects in the Hub Plan area, RWDI and BMT used assumptions outlined in a memorandum from the department.¹⁴

Following completion of the pedestrian wind study for the 30 Van Ness Avenue Project, a change to the building design was proposed that resulted in a shift of the proposed tower while maintaining the previously studied podium design. The 30 Van Ness Avenue Design Change Wind Memorandum¹⁵ confirmed that no conclusions reached in the 30 Van Ness Pedestrian Wind Study would change as a result of the shifting of the tower. Following completion of the pedestrian wind study for the 98 Franklin Street Project, a change to the building design was proposed that resulted in a slight height increase of approximately 5 feet and slight shifting of the proposed tower. The 98 Franklin Street Wind Study Memorandum¹⁶ confirmed that no conclusions reached in the 98 Franklin Street Wind Microclimate Study would change as a result of the change in height or shifting of the tower.

The results of the various wind-tunnel tests for the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project are discussed in the Impact Evaluation below. These tests were performed to define the wind environment following implementation of the Hub Plan and the two individual development projects (mainly sidewalks and open spaces throughout the Hub Plan area) on areas where people would walk. The wind environment under the Hub Plan and the two individual development projects is discussed separately. Plan-level testing took a consistent approach across the district using rough massing, whereas project-level tests incorporated architectural detail. However, for both the plan-level and the project-level tests, wind comfort and wind hazards were analyzed.¹⁷ In addition, each wind-tunnel test included existing wind comfort and wind hazard conditions, as discussed in more detail below. However, the results for each are slightly different because of varying assumptions and other factors. The wind-tunnel tests, as presented below, were conducted by different consultants using different sensors at different scales. Therefore, the existing conditions results vary slightly, but not by an amount that would render the analysis and conclusions unreliable.

¹⁴ San Francisco Planning Department. August 7, 2018—memo to Erin Efner, ICF, “Wind Analysis Massing Assumptions in the EIR for the Hub Plan, Van Ness Avenue Project, 98 Franklin Street Project, and the Hub Housing Sustainability District.” Included in Appendix G-1.A of this document.

¹⁵ RWDI, *30 Van Ness Pedestrian-Level Wind Study – Comments on Design Change Memorandum*, final, June 26, 2019.

¹⁶ BMT, *98 Franklin Street Wind Study Memorandum*, final, 2019.

¹⁷ Bicycle lane locations around the Hub Plan area were also analyzed for informational purposes, but are not included in the EIR analysis below. An analysis of bicycle lane locations can be found in Appendix G-1 and is included as part of a separate technical background study in the administrative record for this project.

PROPOSED STREETScape AND STREET NETWORK IMPROVEMENTS

The streetscape and street network improvements would be implemented entirely within existing public rights-of-way and would not involve construction of any buildings or other structures of a height or bulk great enough to result in adverse effects related to wind. As disclosed in the initial study (see Appendix B), the proposed streetscape and street network changes were found not to affect wind conditions in a substantial manner. Because wind impacts related to streetscape and street network changes would be less than significant, no further analysis is required.

HUB PLAN

The Pedestrian Wind Study for the Hub Plan was prepared by RWDI (Appendix G-1). The analysis of the wind effects of the Hub Plan were performed using the wind testing analysis and evaluation methods that are used for section 148. The purpose of the study was to assess the wind environment around the Hub Plan area in terms of comfort and safety for people walking. This quantitative assessment was based on wind speed measurements on a 1:400 scale model of the Hub Plan area and its surroundings in a boundary-layer wind tunnel. The following configurations were tested:

- **Existing:** Existing site with existing surroundings, including buildings that were under construction as of May 2018, with Van Ness Avenue Bus Rapid Transit (BRT) trees and station structures and existing landscaping included along Van Ness Avenue in the Hub Plan area. In particular, existing landscaping assumed in the model included trees between Franklin Street and Van Ness Avenue on the north side of Market Street, trees in the median of Mission Street at the west corner of the South Van Ness Avenue/Mission Street/Otis Street intersection, two trees in the median of South Van Ness Avenue between Market Street and Mission Street, trees in the median of Van Ness Avenue between a point just north of Grove Street and Mission Street, and trees along the Franklin Street frontage of the 98 Franklin Street site. Landscaping has been included in all configurations to better represent the true wind conditions of the tested areas. Existing conditions for the Hub Plan are discussed in Impact WI-1.
- **Existing plus Hub Plan:** “Existing” configuration with subsequent development that is anticipated to occur with the Hub Plan over time.¹⁸ Specifically, the following study buildings are included and analyzed in Impact WI-1:

¹⁸ Proposed trees assumed to be deciduous at five to 10 years of growth and 10 to 15 feet canopy.

- *Drawings on file, based on project applications:* 30 Van Ness Avenue¹⁹ (including proposed landscaping in front of 30 Van Ness Avenue and wind canopy), 98 Franklin Street, and 10 South Van Ness Avenue (590-foot single tower).
 - *Massing provided by department design team:* 1 South Van Ness Avenue.
 - *Massing, based on submitted plans but with style and height proposed under the Hub Plan:* 1500–1540 Market Street (One Oak) (450 feet), 42 Otis Street (65 feet), and 30 Otis (320 feet).
 - *Full site boundary, extrapolated to full maximum height proposed under the Hub Plan:* 50 Otis Street, 99 South Van Ness Avenue, 33 Gough Street, 110 12th Street, 180 12th Street, 194 12th Street, 154 South Van Ness Avenue, 160 South Van Ness Avenue, 170 South Van Ness Avenue, and 1695 Mission Street Avenue, and 170 Otis Street.^{20,21}
- **Cumulative:** Existing plus Hub Plan plus all cumulative buildings.²² This configuration is also analyzed in Impact C-WI-1.²³

The wind tunnel model included all relevant surrounding buildings and topography within an approximately 3,200-foot radius of the Hub Plan area. The boundary-layer wind conditions beyond the modeled area were also simulated in RWDI's wind tunnel. The wind tunnel model was instrumented with 160 wind speed sensors to measure mean²⁴ and gust wind speeds at a full-

¹⁹ Since completion of the *Market/Octavia Hub Plan Pedestrian Wind Study*, the 30 Van Ness Avenue Project has been redesigned to shift the proposed tower 6 feet to the south, while maintaining the podium design as was previously studied. Given that the other design features remain the same from a massing perspective, this change is considered minor with respect to impacts on wind comfort and hazard conditions at grade level. Therefore, although the *Market/Octavia Hub Plan Pedestrian Wind Study* is based on a slightly different building design, the conclusions in the study would not change.

²⁰ Upon completion of wind tunnel testing, an additional site was added to the Hub Plan: 170 Otis Street. Wind conditions around 170 Otis Street are not expected to be affected by the proposed changes to the 170 Otis Street massing as described. Therefore, there would not be any new or additional exceedance locations as a result of the 170 Otis Street massing.

²¹ RWDI, *170 Otis Street Design Change Wind Memorandum*, final, May 21, 2019.

²² Note that the Hub Plan wind study analyzes two cumulative scenarios: Cumulative 1 and Cumulative 2. The cumulative analysis presented in this section is the Cumulative 1 Scenario, which assumes a 590-foot-tall single-tower project at 10 South Van Ness Avenue. For an analysis of the Cumulative 2 Scenario, please refer to Appendix G-1.

²³ As stated above, since completion of the *Market/Octavia Hub Plan Pedestrian Wind Study*, the 30 Van Ness Avenue Project has been redesigned. However, although the *Market/Octavia Hub Plan Pedestrian Wind Study* is based on a slightly different building design, the conclusions in the study for the cumulative scenario would not change.

²⁴ Although there are 163 numbered test locations, only 160 are included here since sensors 60, 61, and 62 are not currently active.

scale height of approximately 5 feet. The placement of wind measurement locations was based on experience and understanding of the usage of where people walk for the Hub Plan area, and was reviewed by the department. These measurements were recorded for 16 equally incremented wind directions. The department provided guidance throughout the process and conducted review of the analysis, which complies with standard methodology for studies in the city.

Wind statistics recorded at the San Francisco Federal Building between 1945 and 1951 (at a height of 132 feet) were analyzed as a reference for local climate and describe the speed, direction, and frequency of occurrence of winds. Wind statistics were combined with the wind tunnel data to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared against the wind comfort and hazard criteria as stated in planning code section 148.

The threshold wind speeds in the planning code were established by assuming wind speeds were averaged for one hour, while the local wind data available from the old San Francisco Federal Building at 50 United Nations Plaza were recorded for one minute on each hour. Therefore, an equivalent wind speed of 36 mph (based on the assumed one-hour averaged meteorological data) is commonly used in San Francisco for the assessment of hazard winds. The wind tunnel test results presented in the Hub Plan wind study use the one-minute average of 36 mph as the wind hazard criterion.

Buildings in the surrounding area that are under construction and/or have been approved were modeled in accordance with the information received in August 2018 from the department. Buildings within the study radius that are currently under construction were included in all test configurations (i.e., existing conditions). Anticipated future buildings that had been approved but had not begun construction as of May 2018 were included in the Cumulative configurations. A list of these sites is included in Appendix G-1.

30 VAN NESS AVENUE PROJECT

The 30 Van Ness Pedestrian Wind Study was prepared by RWDI (Appendix G-4). The purpose of the 30 Van Ness Avenue Wind Study is to assess the probability of the 30 Van Ness Avenue Project to cause local wind speeds to exceed comfort and hazard criteria at publicly accessible points in the project vicinity. The evaluation of wind comfort and hazards was carried out by testing a 1:400 scale model of the project site and surroundings in accordance with standard city test protocols. A total of 181 wind speed sensors have been selected on project-area sidewalks and sidewalk corners within a 3,200-foot (0.6-mile) radius of the project vicinity in order to measure and then compare wind conditions for the following test scenarios:²⁵

²⁵ The cumulative analysis with future developments around the 30 Van Ness Avenue project site was run as part of *The Pedestrian Wind Study for the Hub Plan* by RWDI, as discussed above.

- **Existing Scenario:** All existing buildings on the site and in the surroundings, including buildings/developments under construction. The assumptions used for the Existing Scenario are consistent with those described above for the Hub Plan, including all existing landscaping assumptions.
- **Existing plus 30 Van Ness Avenue Project Scenario:** The proposed 30 Van Ness Avenue Project with surrounding buildings/developments that are existing and under construction.²⁶

The boundary-layer wind conditions beyond the modeled area were also simulated in RWDI's wind tunnel. The wind tunnel model was instrumented with 181 wind speed sensors to measure mean and gust wind speeds at a full-scale height of approximately 5 feet. The wind measurement locations for the 30 Van Ness Avenue Project are the same as the ones used for the Hub Plan wind study. The placement of wind measurement locations for the site was based on RWDI's experience and understanding of usage in areas where people walk and reviewed and approved by the department. The measurement data were generated for 16 equally incremented wind directions (in increments of 22.5 degrees). The department provided guidance throughout the process and conducted a review of the analysis, which complies with standard methodology for studies in the city.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Wind Microclimate Study and the 98 Franklin Street Wind Study Memorandum were prepared by BMT (Appendix G-6 and G-7).^{27, 28} The purpose of the 98 Franklin Street Wind Study is to assess the probability of the 98 Franklin Street Project to cause local wind speeds to exceed comfort and hazard criteria at publicly accessible points in the project vicinity. The evaluation of wind comfort and hazards was carried out by testing a 1:300 scale model of the project in a boundary layer wind tunnel in accordance with standard city test protocols. A total of 85 city-approved, publicly accessible, ground-level locations ("test points") have been selected on project-area sidewalks and sidewalk corners within a 1,500-foot radius of the project vicinity in order to measure and then compare wind conditions for the following test scenarios:²⁹

²⁶ Since completion of the *30 Van Ness Pedestrian Wind Study*, the 30 Van Ness Avenue Project has been redesigned to shift the proposed tower 6 feet to the south, while maintaining the podium design as was previously studied. Given that the other design features remain the same from a massing perspective, this change is considered minor with respect to impacts on wind conditions at grade level. Therefore, although the *30 Van Ness Pedestrian Wind Study* is based on a slightly different building design, the conclusions in the study would not change.

²⁷ BMT, *98 Franklin Street Wind Microclimate Study*, final report, February 8, 2019.

²⁸ BMT, *98 Franklin Street Wind Study Memorandum*, final, 2019.

²⁹ The cumulative analysis with future developments around the 98 Franklin Street project site was run as part of *The Pedestrian Wind Study for the Hub Plan* by RWDI, as discussed above.

- **Existing Scenario:** all existing buildings in the surroundings including buildings/developments under construction
- **Existing plus 98 Franklin Street Project Scenario:**³⁰ The project was added to the Existing Scenario. Included as part of the project are evergreen trees along Franklin Street and along Oak Street, replacement of four trees at the north side along Oak Street with evergreen trees, and implementation of a canopy along the western façade of the project (along Franklin Street) to examine the changes to ground-level wind speed.

Measurements were taken for 16 wind directions in increments of 22.5 degrees (0 degrees represent the compass north). A subset of 85 test points from the Hub Plan wind study are included in this wind tunnel test for all scenarios. The test points were selected within a 1,500-foot radius of the project site. The test points were positions in key locations within the study area, which are the areas of use by people walking, including the locations on the sidewalks, street intersections, and open spaces. These test points have potential changes in wind speed and turbulence levels within the development areas of the project.

The locations of the test points are distributed amongst study area streets. Additionally, a total of 58 test points specific to the 98 Franklin Street Project within a reduced coverage (approximately 700-foot radius of the project site) were selected to assess a more typical project-specific scenario. The test point locations are the same for the Existing Scenario and the Existing plus 98 Franklin Street Project Scenario. The department provided guidance throughout the process and conducted a review of the analysis, which complies with standard methodology for studies in the city.

DENSITY BONUS PROGRAMS

As discussed in Chapter 2, Project Description, the state density bonus program, as well as the City's Affordable Housing Bonus Program (codified in planning code section 206), would be applicable in the Hub Plan area. This would result in the potential for added height for affordable housing projects. However, the locations where project sponsors might use the state or local density bonus programs are not known. Although these bonus programs permit an increase in residential density beyond that otherwise allowed, and enable project sponsors to request waivers or modifications with respect to planning code requirements, including height limits, they do not exempt subsequent projects from being subject to CEQA review. Therefore, pursuant to state density bonus law, any project for which additional height is requested would be evaluated further under CEQA.

³⁰ Note that the 98 Franklin Street Wind Study includes the Existing plus 98 Franklin Street Project Scenario and the Existing plus 98 Franklin Street Project with Mitigation Scenario. As a result of the findings in the wind study, the proposed measures to reduce wind impacts are now included as part of the 98 Franklin Street Project. Therefore, only one 98 Franklin Street Project Scenario is analyzed in this section.

IMPACT EVALUATION

Impact WI-1: The Hub Plan could create wind hazards in publicly accessible areas with substantial pedestrian use. (Less than Significant with Mitigation)

WIND COMFORT

Table 3.E-1 provides a summary of the averages and total wind comfort exceedances for all 160 measurement locations. The results of the wind comfort conditions for all measurement locations are included in Appendix G-1. For each measurement point, the measured 10 percent exceeded (90th percentile) equivalent wind speed and the percentage of time that the wind speed exceeds 11 mph are listed. The point is marked as a comfort exceedance if the 11 mph threshold is exceeded. According to the San Francisco wind comfort criterion, locations with wind speeds that exceed 11 mph are considered uncomfortable for any use. Locations with wind speeds between 7 to 11 mph are comfortable for sidewalks. Locations with wind speeds lower than 7 mph are suitable for any area including entrances, seating areas, and bus stops. **Figure 3.E-1** depicts the existing wind comfort conditions for people walking.

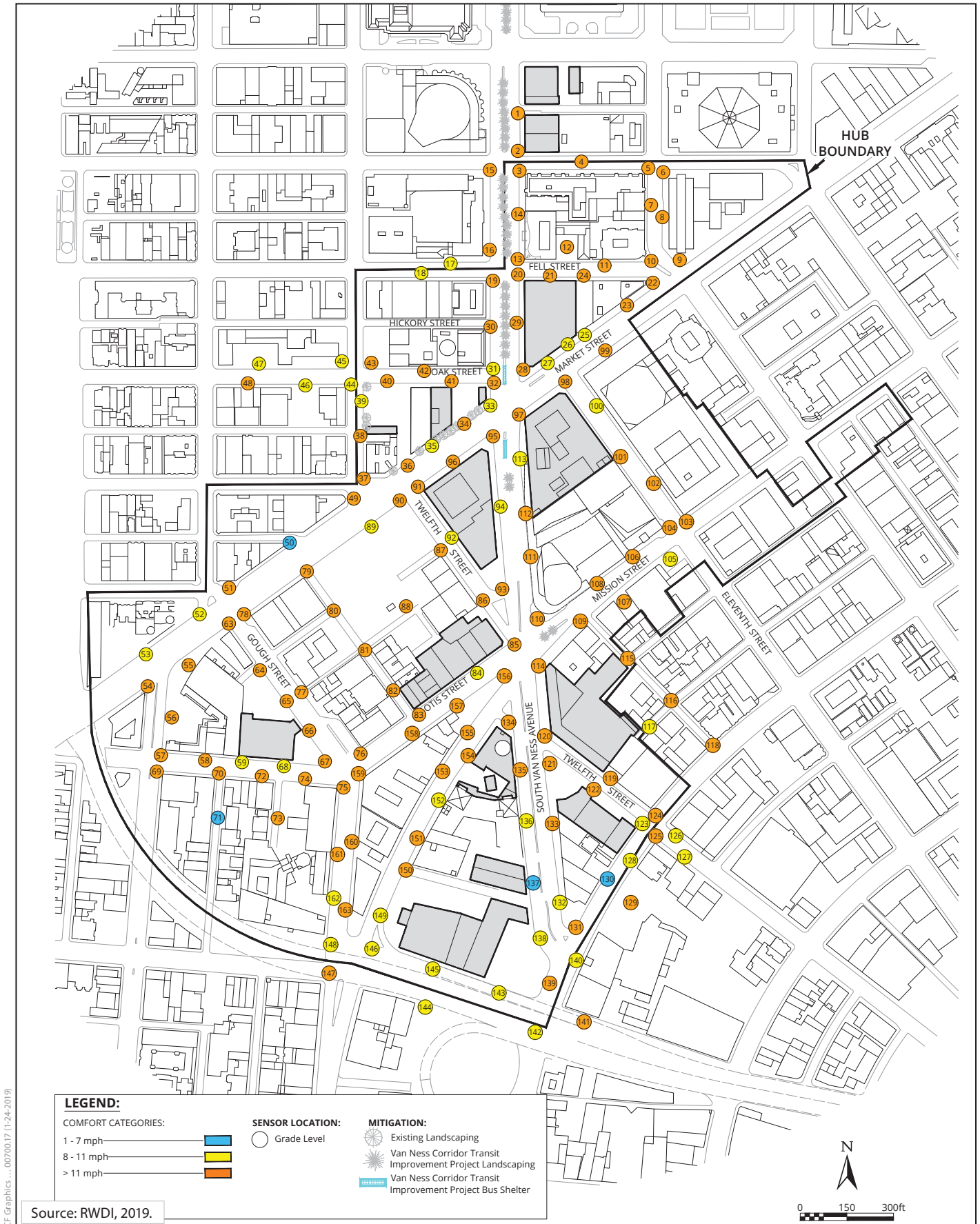
TABLE 3.E-1. THE HUB PLAN WIND COMFORT CONDITIONS

Existing			Existing plus Hub Plan			
Average Wind Speed Exceeded 10% of Time (mph)	Average % of Time Wind Speed Exceeds 11 Miles per Hour (%)	Exceedances	Average Wind Speed Exceeded 10% of Time (mph)	Average % of Time Wind Speed Exceeds 11 Miles per Hour (%)	Speed Change Relative to Existing (mph)	Exceedances
14	21	114	15	25	1	125

Source: RWDI, 2019

For the existing configuration, the average 90th percentile wind speed for the 160 test locations is approximately 14 mph. Wind speeds at 114 of 160 test locations exceed the planning code’s comfort criterion of 11 mph for people walking. Winds currently exceed the applicable criterion 21 percent of the time (**Table 3.E-1** and **Figure 3.E-1**).

Compared to the existing configuration, the addition of the Hub Plan would result in similar wind comfort conditions in the Hub Plan area. The average 90th percentile wind speed for 160 test locations would be 15 mph, an increase of 1 mph over existing conditions. Wind speeds at 125 test locations (**Figure 3.E-2**, p. 3.E-15) would exceed the planning code’s comfort criterion of 11 mph for people walking. However, the Hub Plan would eliminate existing wind comfort exceedances at 12 locations; therefore, the Hub Plan would result in a net increase at 11 test locations compared



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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

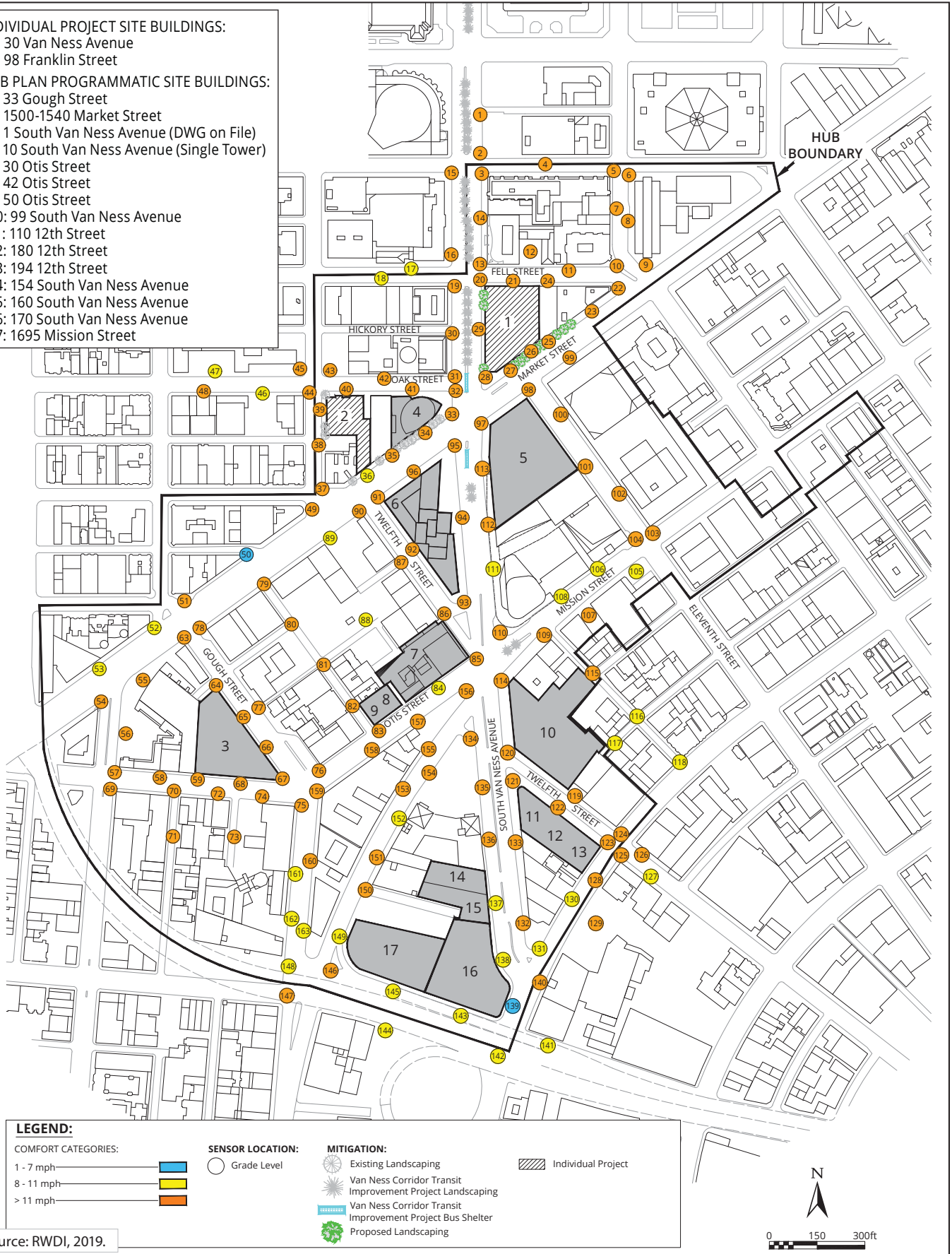
Figure 3.E-1
Existing Pedestrian Wind Comfort Conditions
(Hub Plan)

INDIVIDUAL PROJECT SITE BUILDINGS:

- 1: 30 Van Ness Avenue
- 2: 98 Franklin Street

HUB PLAN PROGRAMMATIC SITE BUILDINGS:

- 3: 33 Gough Street
- 4: 1500-1540 Market Street
- 5: 1 South Van Ness Avenue (DWG on File)
- 6: 10 South Van Ness Avenue (Single Tower)
- 7: 30 Otis Street
- 8: 42 Otis Street
- 9: 50 Otis Street
- 10: 99 South Van Ness Avenue
- 11: 110 12th Street
- 12: 180 12th Street
- 13: 194 12th Street
- 14: 154 South Van Ness Avenue
- 15: 160 South Van Ness Avenue
- 16: 170 South Van Ness Avenue
- 17: 1695 Mission Street



Source: RWDI, 2019.

Figure 3.E-2
Existing + Hub Plan Pedestrian
Wind Comfort Conditions

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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to existing conditions. Winds would exceed the 11 mph criterion approximately 25 percent of the time, representing a 4 percent increase compared to existing conditions. The wind conditions at Location 10 would not be affected by the addition of Hub Plan buildings.

WIND HAZARD

Table 3.E-2 provides a summary of the averages and total wind hazard exceedances for all 160 measurement locations. The predicted number of hours per year that the section 148 wind hazard criterion (one-minute wind speed of 36 mph) would be exceeded is also provided. **Figure 3.E-3** depicts the existing wind hazard conditions for people walking. The results of the wind hazard conditions for all measurement locations are included in Appendix G-1.

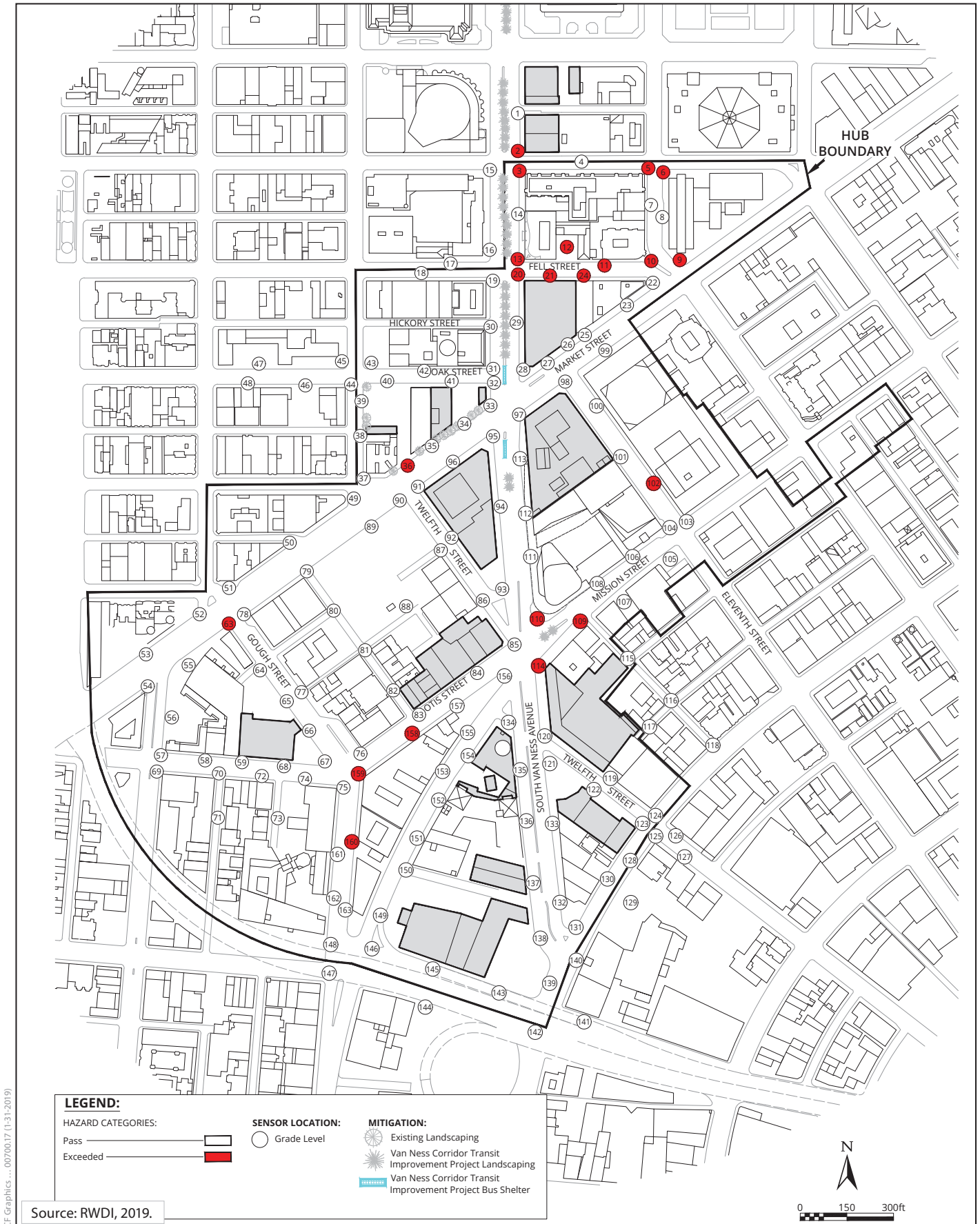
TABLE 3.E-2. THE HUB PLAN WIND HAZARD CONDITIONS

Existing			Existing plus Hub Plan			
Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours/Year Wind Speed Exceeds Hazard Criterion	Exceedances	Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours/Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceedances
27	567	21	29	780	213	32

Source: RWDI, 2019

Under the Existing Scenario, the wind hazard criterion is currently exceeded at 21 of the 160 test locations for a total of 567 hours (**Table 3.E-2** and **Figure 3.E-3**). Of these 21 test locations that exceed the hazard criterion, 12 locations are to the north of Market Street, along Fell and Hayes streets. The remaining locations are clustered at the intersections of Mission Street and South Van Ness Avenue, and Otis Street and Gough Street, with individual locations also located along Market and 11th streets.

The addition of the Hub Plan would result in 32 locations that exceed the one-hour per year hazard criterion, or 19 additional locations as compared to existing conditions. However, wind hazard exceedances would be eliminated at 8 locations with implementation of the Hub Plan, resulting in a net increase of wind hazard exceedances of 11 locations compared to existing conditions. The total number of hours per year where winds would exceed the applicable hazard criterion would increase by 213 hours when compared to the existing configuration (**Table 3.E-2** and **Figure 3.E-4**, p. 3.E-18), for a total of 780 hours. The majority of the new exceedances would occur to the north and south of 33 Gough Street, around all faces of 1 South Van Ness, and along South Van Ness Avenue. Uses of these areas include sidewalks, building entrances, and bus stops.



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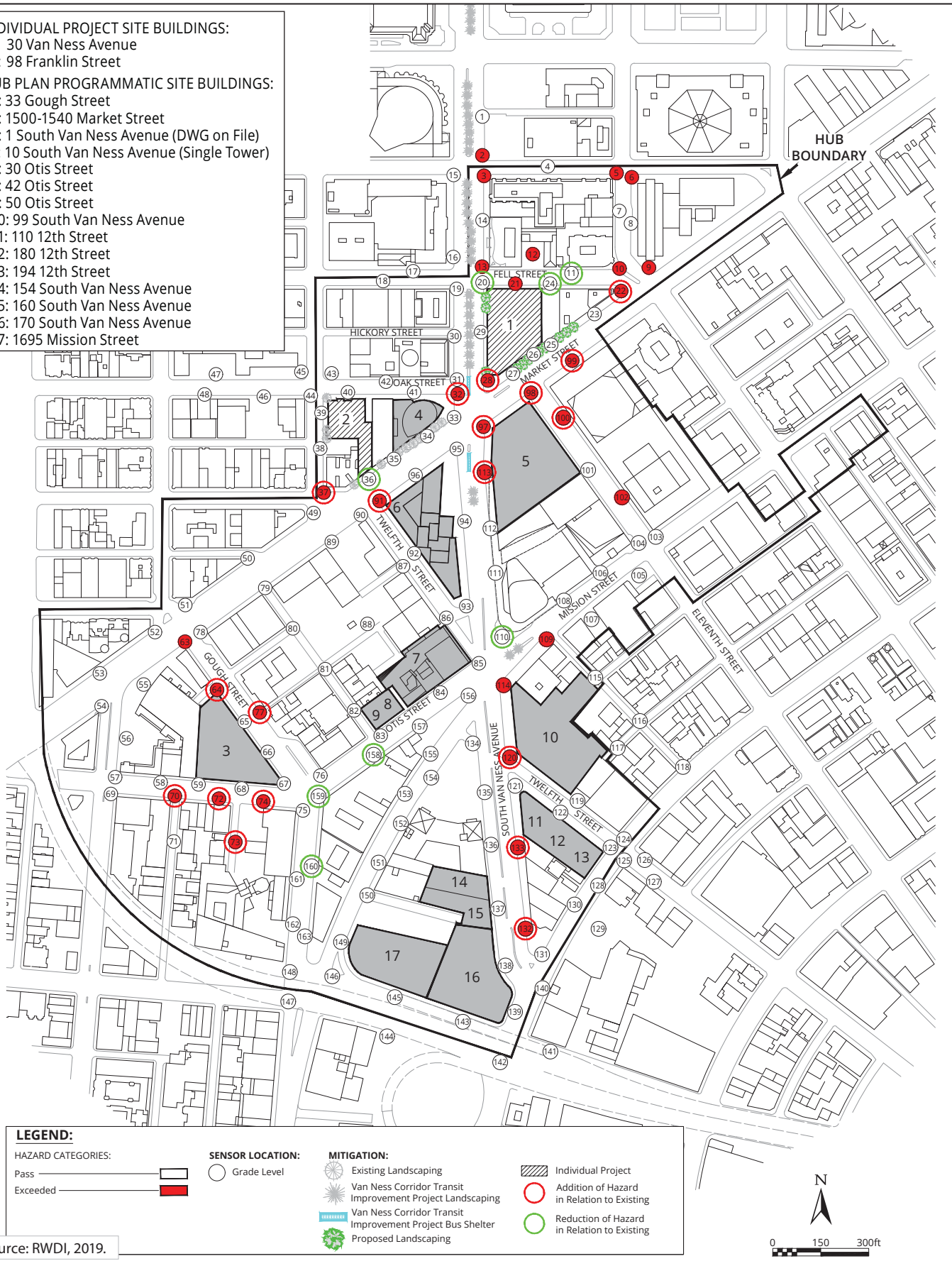
Figure 3.E-3
Existing Pedestrian Wind Hazard Conditions
(Hub Plan)

INDIVIDUAL PROJECT SITE BUILDINGS:

- 1: 30 Van Ness Avenue
- 2: 98 Franklin Street

HUB PLAN PROGRAMMATIC SITE BUILDINGS:

- 3: 33 Gough Street
- 4: 1500-1540 Market Street
- 5: 1 South Van Ness Avenue (DWG on File)
- 6: 10 South Van Ness Avenue (Single Tower)
- 7: 30 Otis Street
- 8: 42 Otis Street
- 9: 50 Otis Street
- 10: 99 South Van Ness Avenue
- 11: 110 12th Street
- 12: 180 12th Street
- 13: 194 12th Street
- 14: 154 South Van Ness Avenue
- 15: 160 South Van Ness Avenue
- 16: 170 South Van Ness Avenue
- 17: 1695 Mission Street



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
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Figure 3.E-4
Existing + Hub Plan Pedestrian
Wind Hazard Conditions

CONCLUSION

Subsequent development projects proposed in the Hub Plan area may combine building exposure, massing, and/or orientation in a way that accelerates wind speeds at the ground level. In addition, future affordable housing projects in the Hub Plan area could result in additional height, as allowed by density bonus programs. Design details, such as setting back a tall tower from the edges of a podium, installing deep canopies close to ground level, installing wind screens, and planting trees with dense landscaping, could help reduce wind speeds at all future projects. The choice and effectiveness of these measures would depend on the exposure and orientation of the site with respect to the prevailing wind directions and the size and massing of the proposed buildings. These structural features would be expected to reduce ground-level wind speeds and turbulence.

For the program-level wind testing, wind tunnel models did not include detailed landscape features in open areas or specific building articulation beyond basic setbacks or specific plans identified under the Approach to Analysis section, above. Without these features included in the wind tunnel model, the test results reported are conservative and likely to indicate higher wind speeds than would actually occur. However, the Hub Plan would rezone all of the Hub Plan area to Downtown General Commercial (C-3-G) zoning, with the exception of the two small pockets of existing Public (P) zoning. Therefore, any buildings proposed in the Hub Plan area, including projects for which additional height is requested, pursuant to state density bonus law, would be required to comply with section 148. The specific design for subsequent projects, when proposed, would be required to not exceed the wind hazard criterion specified in section 148. Building articulation and landscaping features for subsequent development projects could eliminate the 11 net new hazard criterion exceedances that were identified in the Hub Plan condition. However, because these details have not been developed and cannot be known at this time, it is not possible to assess the effects that these specific design measures for future buildings may have on winds in the Hub Plan area and vicinity. Therefore, the program-level wind testing of the massing model indicates that the Hub Plan could result in 11 net new exceedances of the one-hour per year hazard criterion, resulting in a *significant* impact.

MITIGATION MEASURES

Although all subsequent development projects in the Hub Plan area would be required to comply with section 148, the section does not describe precisely how projects are to comply with this section. Therefore, the mitigation measure below applies to all subsequent development projects in the Hub Plan area that propose buildings with a roof height of more than 85 feet.

As previously discussed, wind speeds increase with elevation. Buildings taller than their surroundings intercept winds at higher elevations and deflect them down to the ground level. This is the main cause for increased ground-level wind activity around tall buildings. In the

Hub Plan area, with the exception of a few tall buildings along Market Street and Van Ness Avenue, most buildings are three to five stories (approximately 30 to 60 feet tall). A new building in the area of 85 feet or less would be the same height as, or slightly taller than, existing buildings and, as a result, would have limited wind exposure. The potential increase in wind speed for these buildings would not be substantial. Thus, it is unlikely that buildings of less than 85 feet would create wind hazards.³¹ Therefore, Mitigation Measure M-WI-1a would apply only to buildings that would have a roof height of 85 feet or more. This mitigation measure would not apply to the projects proposed at 30 Van Ness Avenue and 98 Franklin Street, for which project-specific wind analyses have been conducted, as summarized in this EIR (see Impact WI-2, below).

M-WI-1a: *Wind Analysis and Minimization Measures for Subsequent Projects.* All projects proposed within the Hub Plan area that would have a roof height greater than 85 feet shall be evaluated by a qualified wind expert, in consultation with the San Francisco Planning Department, to determine their potential to result in a new wind hazard exceedance or aggravate an existing pedestrian-level wind hazard exceedance (defined as the one-hour wind hazard criterion with a 26 mph equivalent wind speed).

If the qualified expert determines that wind-tunnel testing is required due to the potential for a new or worsened wind hazard exceedance, such testing shall be undertaken in coordination with San Francisco Planning Department staff members, with results summarized in a wind report.

The buildings tested in the wind tunnel may incorporate only those wind baffling features that can be shown on plans. Such features must be tested in the wind tunnel and discussed in the wind report in the order of preference discussed below, with the overall intent being to reduce ground-level wind speeds in areas of substantial use by people walking (e.g., sidewalks, plazas, building entries, etc.):

1. **Building Massing.** New buildings and additions to existing buildings shall be shaped to minimize ground-level wind speeds. Examples of these include setbacks, stepped facades, and vertical steps in the massing to help disrupt downwashing flows.

³¹ RWDI, *Market/Octavia Hub Plan Memorandum*, final, June 3, 2019.

2. ***Wind Baffling Measures on the Building and on the Project Sponsor's Private Property.*** Wind baffling measures shall be included on future buildings and/or on the sponsor's private property to disrupt vertical wind flows along tower façades and through the project site. Examples of these may include staggered balcony arrangements on main tower façades, screens and canopies attached to the buildings, rounded building corners, covered walkways, colonnades, art, landscaping, free-standing canopies, or wind screens.³²

Only after documenting all feasible attempts to reduce wind impacts via building massing and wind baffling measures on a building, shall the following be considered:

3. ***Landscaping and/or Wind Baffling Measures in the Public Right-of-Way.*** Landscaping and/or wind baffling measures shall be installed to slow winds along sidewalks and protect places where people walking are expected to gather or linger. Landscaping and/or wind baffling measures shall be installed on the windward side of the areas of concern (i.e., the direction from which the wind is blowing).³³ Examples of wind baffling measures may include street art to provide a sheltered area for people to walk and free-standing canopies and wind screens in areas where people walking are expected to gather or linger. If landscaping or wind baffling measures are required as one of the features to mitigate wind impacts, ***Mitigation Measure M-WS-1b*** (below) shall also apply.

M-WI-1b: Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way. If it is determined that an individual subsequent development project could not reduce additional wind hazards via massing or wind baffling measures on the subject building, the project sponsors shall prepare a maintenance plan for review and approval by the San Francisco Planning Department to ensure maintenance of the features in perpetuity.

³² Solid windscreens have a greater effect at reducing the wind speeds to immediate leeward side of the screens; however, outside of this area of influence, the winds are either unaffected or accelerated. Porous windscreens have less of an impact to the immediate leeward side; however, they have an increased area of influence and are less likely to cause any accelerations of the winds further downwind.

³³ Landscaping typically impacts winds locally; the larger the tree crown and canopy, the greater the area of influence. Tall, slender trees with little foliage have little to no impact on local winds speeds at ground level because of the height of the foliage above ground. Shorter street trees with larger canopies help reduce winds around them but their influence on conditions farther away is limited.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measures M-WI-1a and M-WI-1b would reduce the potential for a net increase in wind hazard exceedances and the hours of wind hazard exceedances through identification of methods to comply with section 148 and a specific maintenance plan to ensure wind baffling in perpetuity. Therefore, this impact would be reduced to *less than significant with mitigation*.

Impact WI-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create wind hazards in publicly accessible areas with substantial pedestrian use. (Less than Significant with Mitigation)

30 VAN NESS AVENUE PROJECT

A total of 160 test locations were included in the assessment of potential wind impacts for people walking for the 30 Van Ness Avenue Project.³⁴

Wind Comfort

Table 3.E-3 presents the wind comfort results for the Existing Scenario and the Existing plus 30 Van Ness Avenue Project Scenario. For each measurement point, the measured 10 percent exceeded (90th percentile) equivalent wind speed and the percentage of time that the wind speed would exceed 11 mph are listed for areas considered to be used primarily for walking. The point is marked as a comfort exceedance if the 11 mph threshold is exceeded. However, the table only includes a summary of the wind comfort conditions as a result of the 30 Van Ness Avenue Project; the results of the wind comfort conditions for all measurement locations is included in Appendix G-4.

TABLE 3.E-3. 30 VAN NESS AVENUE PROJECT WIND COMFORT CONDITIONS

Existing			Existing plus 30 Van Ness Avenue Project			
Average Wind Speed Exceeded 10% of Time (mph)	Average % of Time Wind Speed Exceeds 11 Miles per Hour (%)	Exceedances	Average Wind Speed Exceeded 10% of Time (mph)	Average % of Time Wind Speed Exceeds 11 Miles per Hour (%)	Speed Change Relative to Existing (mph)	Exceedances
13	20	112	14	21	1	126

Source: RWDI, 2019

³⁴ As discussed above, although there are 163 numbered test locations, only 160 are included here since sensors 60, 61, and 62 are currently not active.

For the existing configuration, wind speeds exceed 11 mph at most of the areas, averaging 13.4 mph across all measurement locations. On average, wind speeds exceed 11 mph 20 percent of the time. Winds at 112 out of 160 test locations exceed the 11 mph criterion. Wind speeds below 11 mph are predicted at a few isolated locations offsite. **Figure 3.E-5** depicts the existing wind comfort conditions on and around the project site.

With the addition of the 30 Van Ness Avenue Project, a small net increase (approximately 0.3 mph) in wind speeds is expected as compared to the existing configuration. The average wind speed is predicted to be 13.7 mph. The wind speeds at a total of 126 locations (**Figure 3.E-6**, p. 3.E-25) would exceed the planning code’s comfort criterion of 11 mph for people walking. However, the 30 Van Ness Avenue Project would eliminate existing wind comfort exceedances at four locations; therefore, the 30 Van Ness Avenue Project would result in a net increase of 14 test locations as compared to existing conditions. Winds would exceed the 11 mph criterion approximately 21 percent of the time, representing a 1 percent increase compared to the existing configuration with implementation of the 30 Van Ness Avenue Project.

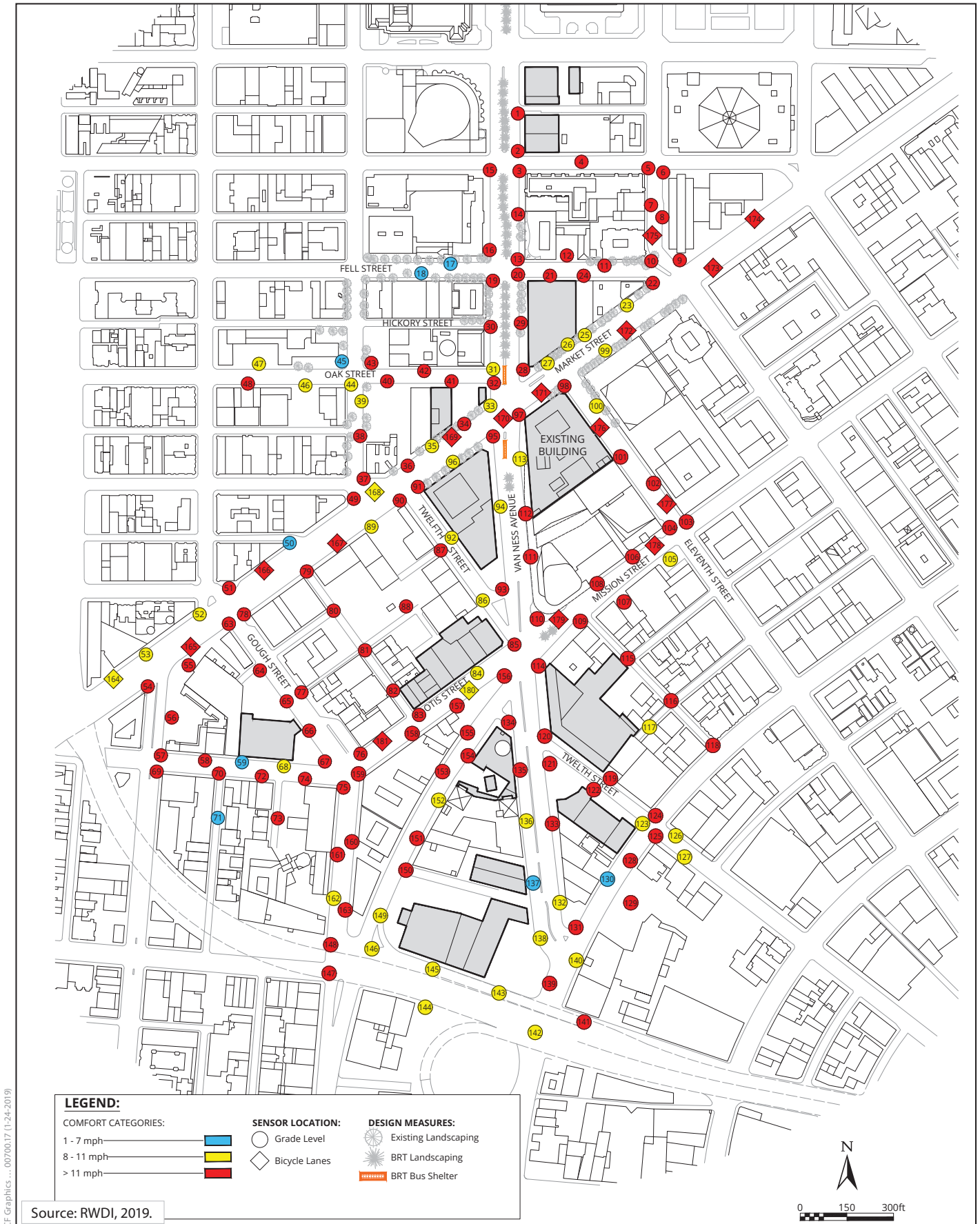
Wind Hazard

Table 3.E-4 presents the wind hazard results for the Existing Scenario and the Existing plus 30 Van Ness Avenue Project Scenario. In addition, the table lists the predicted average wind speeds that would be exceeded one hour per year. The predicted average number of hours per year that the section 148 wind hazard criterion (one-minute wind speed of 36 mph) would be exceeded is also provided. The table only includes a summary of wind hazard conditions as a result of the 30 Van Ness Avenue Project. The results of the wind hazard conditions for all measurement locations is included in Appendix G-4. Under the Existing Scenario, the wind hazard criterion is currently exceeded at 19 of the 160 test locations for a total of 508 hours (**Table 3.E-4** and **Figure 3.E-7**, p. 3.E-26). The 19 locations that currently exceed the hazard criterion include Locations 2, 3, 5, 6, 9, 10, 12, 13, 20, 21, 24, 63, 102, 109, 110, 114, 158, 159, and 160.

TABLE 3.E-4. 30 VAN NESS AVENUE PROJECT WIND HAZARD CONDITIONS

Existing			Existing plus 30 Van Ness Avenue Project			
Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours/Year Wind Speed Exceeds Hazard Criterion	Exceedances	Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours/Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceedances
26	508	19	26	322	-186	19

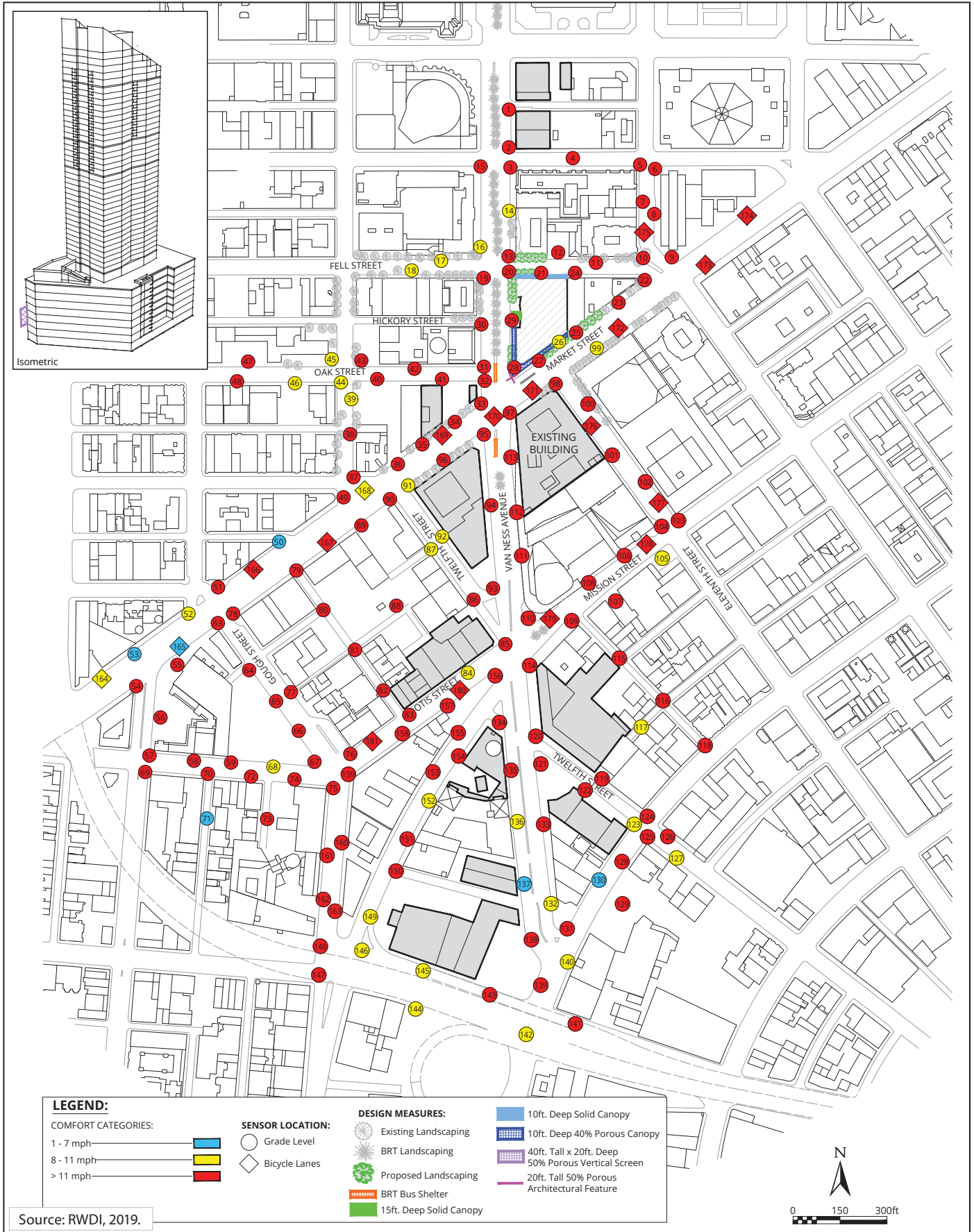
Source: RWDI, 2019



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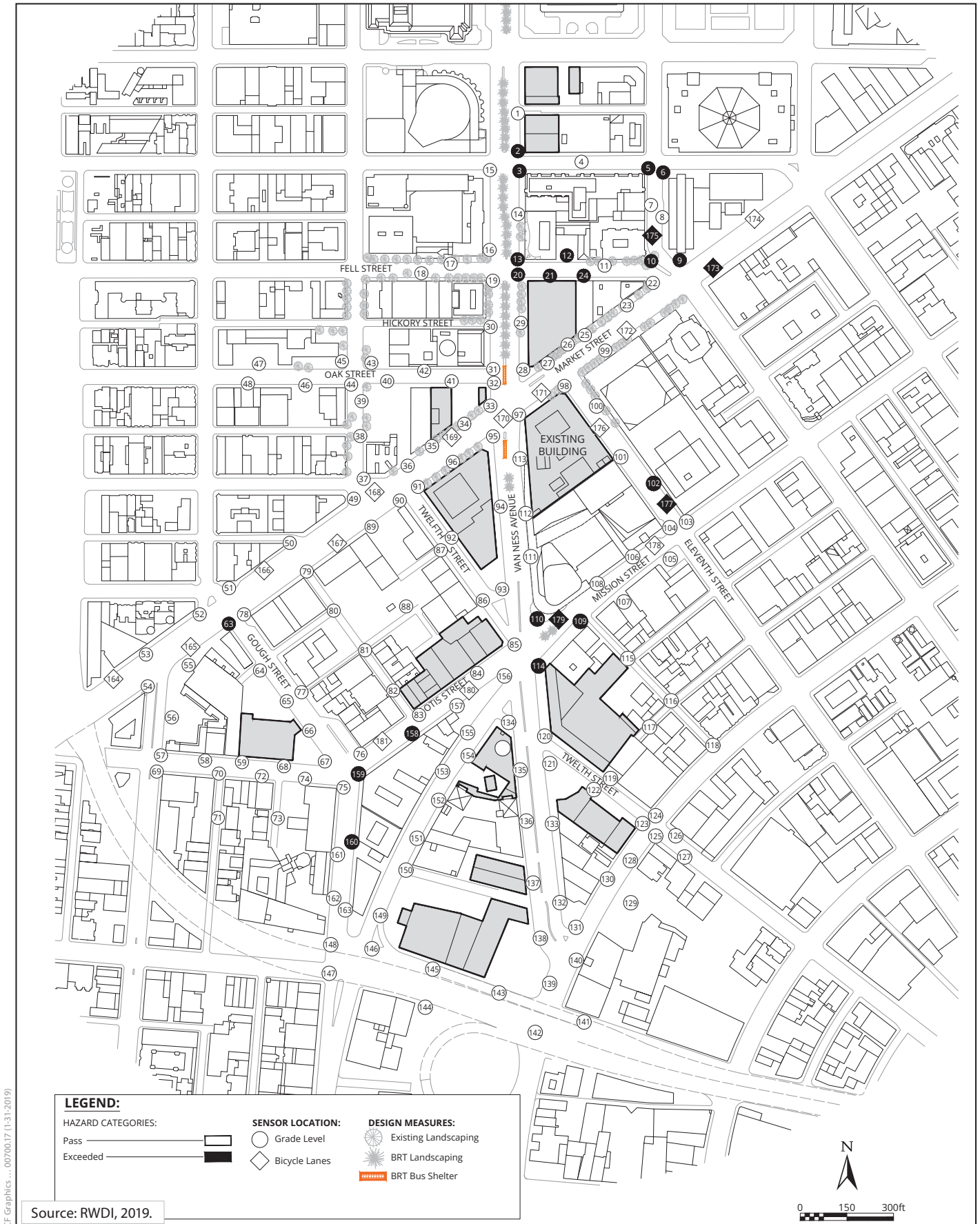
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Figure 3.E-5
Existing Pedestrian Wind Comfort Conditions
(30 Van Ness)



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Figure 3.E-6
Existing + 30 Van Ness Avenue Project
Wind Comfort Conditions



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Figure 3.E-7
Existing Pedestrian Wind Hazard Conditions
(30 Van Ness)

With the addition of the 30 Van Ness Avenue Project, the number of locations where the wind hazard criterion is predicted to be exceeded is anticipated to remain the same as in the existing configuration, for a total of 322 hours. Because of the addition of design features, such as a sculptural feature, overhead canopies, vertical wind screens, and landscaping, some existing onsite and nearby windy areas are expected to improve (Locations 12, 20, and 24 in **Figure 3.E-8**), whereas some additional offsite locations are predicted to exceed the hazard criterion (Locations 22, 41, and 97 in **Figure 3.E-8**). Overall, the number of locations with hazardous wind conditions would remain the same as under existing conditions, but the total number of hours with hazardous wind conditions would decrease from 508 to 322.

Conclusion

The 30 Van Ness Avenue Project would result in no net increase of test locations exceeding the wind hazard criterion. In addition, the total number of hours with hazardous wind conditions would decrease by 186 hours under the 30 Van Ness Avenue Project. The addition of the proposed onsite landscaping (along with the combination of other wind control measures) is expected to improve the wind hazard conditions compared to the Existing Scenario. However, because the proposed landscaping is not guaranteed to be maintained during operation of the 30 Van Ness Avenue Project, impacts would be *significant*.

MITIGATION MEASURES

Mitigation Measure M-WI-1b, as listed above under Impact WI-1, will be implemented for the 30 Van Ness Avenue Project.

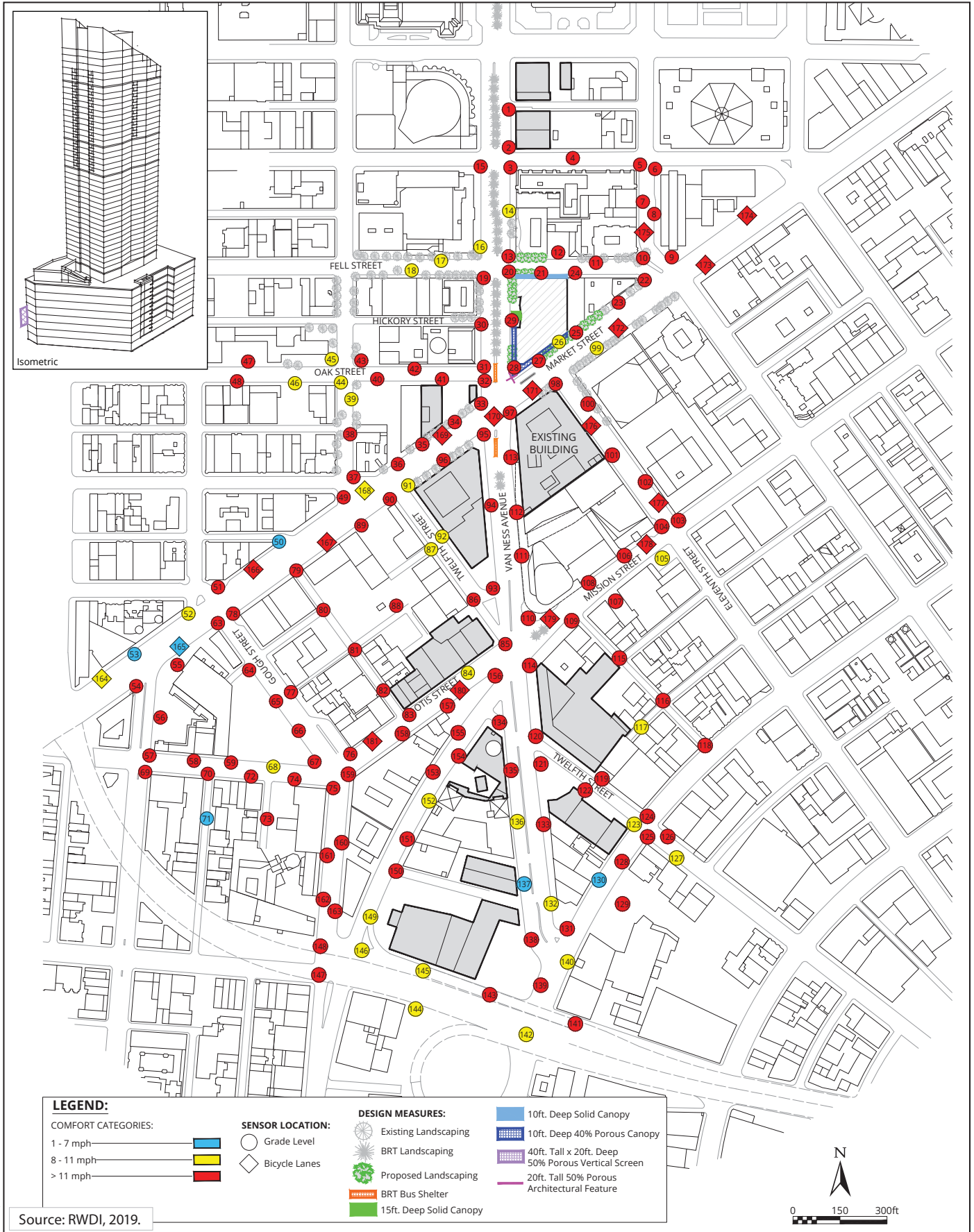
SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure M-WI-1b, as listed above under Impact WI-1, requires a maintenance plan for landscaping and wind baffling measures in the public right-of-way. This mitigation measure would reduce the potential for a net increase in wind hazard exceedances and the hours of wind hazard exceedances through a specific maintenance plan to ensure wind baffling in perpetuity. Therefore, the wind impact from the 30 Van Ness Avenue Project would be reduced to *less than significant with mitigation*.

98 FRANKLIN STREET PROJECT

Wind Comfort

Table 3.E-5, p. 3.E-29, shows the wind comfort analysis results for the Existing Scenario and Existing plus 98 Franklin Street Project Scenario. The wind comfort results are expressed as the probability of exceeding the comfort one-minute mean wind speed of 11 mph followed by the one-minute mean wind speed that is exceeded 10 percent of the time. All of the points tested were on sidewalks, at corners with crosswalks, or within the publicly accessible use areas for



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Figure 3.E-8
Existing + 30 Van Ness Avenue Project
Wind Hazard Conditions

TABLE 3.E-5. 98 FRANKLIN STREET PROJECT WIND COMFORT CONDITIONS

Location	Existing			Existing plus 98 Franklin Street Project			
	Wind Speed Exceeded 10% of Time (mph)	% of Time Wind Speed Exceeds 11 Miles per Hour (%)	Exceedances	Wind Speed Exceeded 10% of Time (mph)	% of Time Wind Speed Exceeds 11 Miles per Hour (%)	Speed Change Relative to Existing (mph)	Exceedances
Average (All)	14.2	22	64	14.6	24	0.4	69
Average ^a	14.1	22	45	14.7	25	0.6	51

Source: BMT, 2019.

Notes:

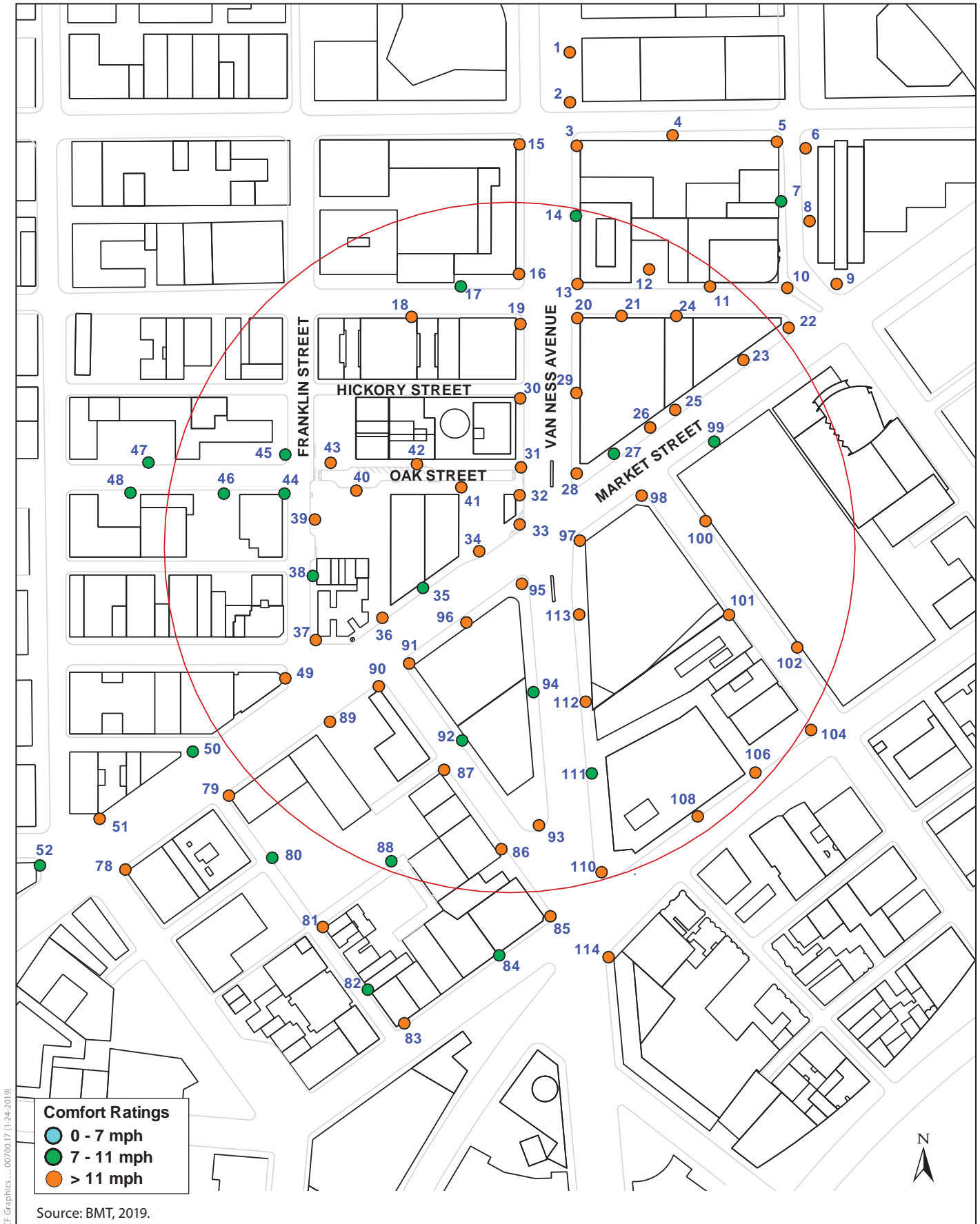
a. project-specific test points

people walking on the project site and within the study area. However, the table includes only a summary of wind comfort conditions with the 98 Franklin Street Project; the results of the wind comfort conditions for all measurement locations is included in Appendix G-6. **Figure 3.E-9** depicts the existing wind comfort conditions for people walking.

Existing wind conditions in the project site’s vicinity are generally characterized as windy. The site and surroundings are subject to wind in excess of the comfort criterion for more than 10 percent of the time during the year at multiple test points. Wind at 64 of the 85 total test points exceed the comfort criterion. As shown in **Table 3.E-5**, the average year-round wind speed exceeded 10 percent of the time, between 7 a.m. and 6 p.m., for all test points is 14.2 mph, which is higher than the city’s 11 mph comfort criterion for areas of use by people walking.

The existing wind conditions at 45 out of 58 total project-specific test points within the reduced radius exceed the comfort criterion. The average year-round wind speed exceeded 10 percent of the time, between 7 a.m. and 6 p.m., for all test points is 14.1 mph, which is higher than the city’s 11 mph comfort criterion for areas of use by people walking. **Figure 3.E-9** depicts the existing wind comfort conditions for people walking.

In terms of comfort, the average year-round wind speed, exceeded 10 percent of the time between 7 a.m. to 6 p.m. for all test locations, would slightly increase under the project from 14.2 mph to 14.6 mph. This results in a higher wind speed than the 11 mph comfort criterion for areas of use by people walking. Wind conditions at a total of 69 out of 85 test points would



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Figure 3.E-9
Existing Pedestrian Wind Comfort Conditions
(98 Franklin)

exceed the comfort criterion for the Existing plus 98 Franklin Street Project Scenario³⁵ (as shown in **Table 3.E-5**, p. 3.E-29, and **Figure 3.E-10**). However, the project would eliminate existing wind comfort exceedances at four locations; therefore, the project would result in a net increase of five test locations as compared to existing conditions. Wind conditions at 51 out of the 58 project-specific test points within a reduced radius from the project site would exceed the comfort criterion for the Existing plus 98 Franklin Street Project Scenario.

Wind Hazard

Table 3.E-6 shows the wind hazard results presented as the probability of having an equivalent wind speed exceed the 26 mph mean hourly wind speed hazard criterion for a full hour within any one-year period, followed by the wind speed that is exceeded once per year and the number of hours that the hazard criterion of 26 mph is exceeded. The 26 mph hourly average is converted to a one-minute mean of 36 mph, which is used to determine compliance with the 26 mph one-hour hazard criterion in the planning code. However, the table only includes a summary of the wind hazard conditions with the 98 Franklin Street Project; the results of the wind hazard conditions for all measurement locations is included in Appendix G-6. **Figure 3.E-11**, p. 3.E-33, depicts the existing wind hazard conditions for people walking.

TABLE 3.E-6. 98 FRANKLIN STREET PROJECT WIND HAZARD CONDITIONS

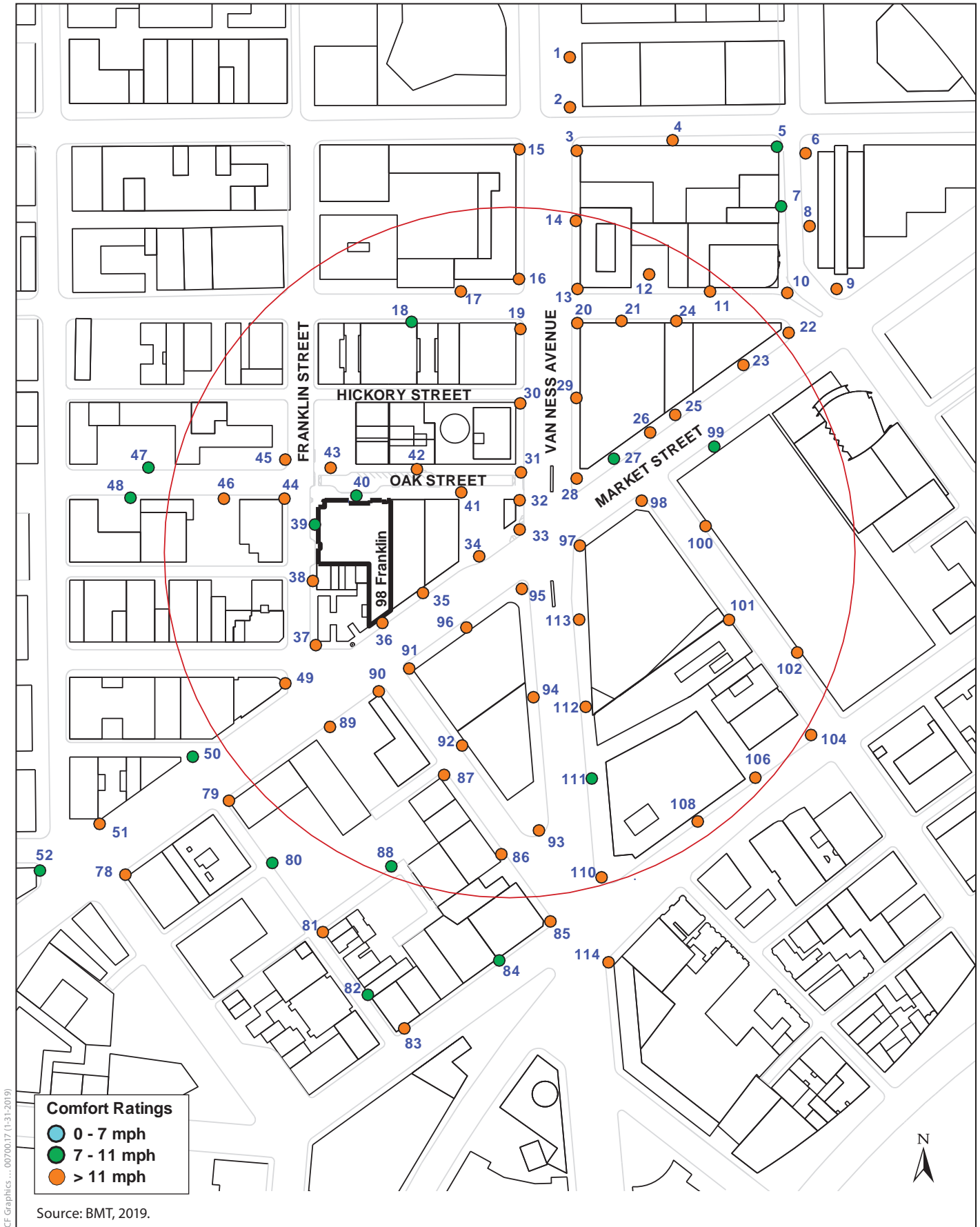
Location	Existing			Existing plus 98 Franklin Street Project			
	Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours Per Year Wind Speed Exceeds Hazard Criterion	Exceedances	Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours Per Year Wind Speed Exceeds Hazard Criterion	Total Hours Change Relative to Existing	Exceedances ^a
Average/Sum (All)	29.7	457	17	30.3	427	-30	14
Average/Sum ^a	29.6	305	9	30.6	289	-16	8

Source: BMT, 2019.

Notes:

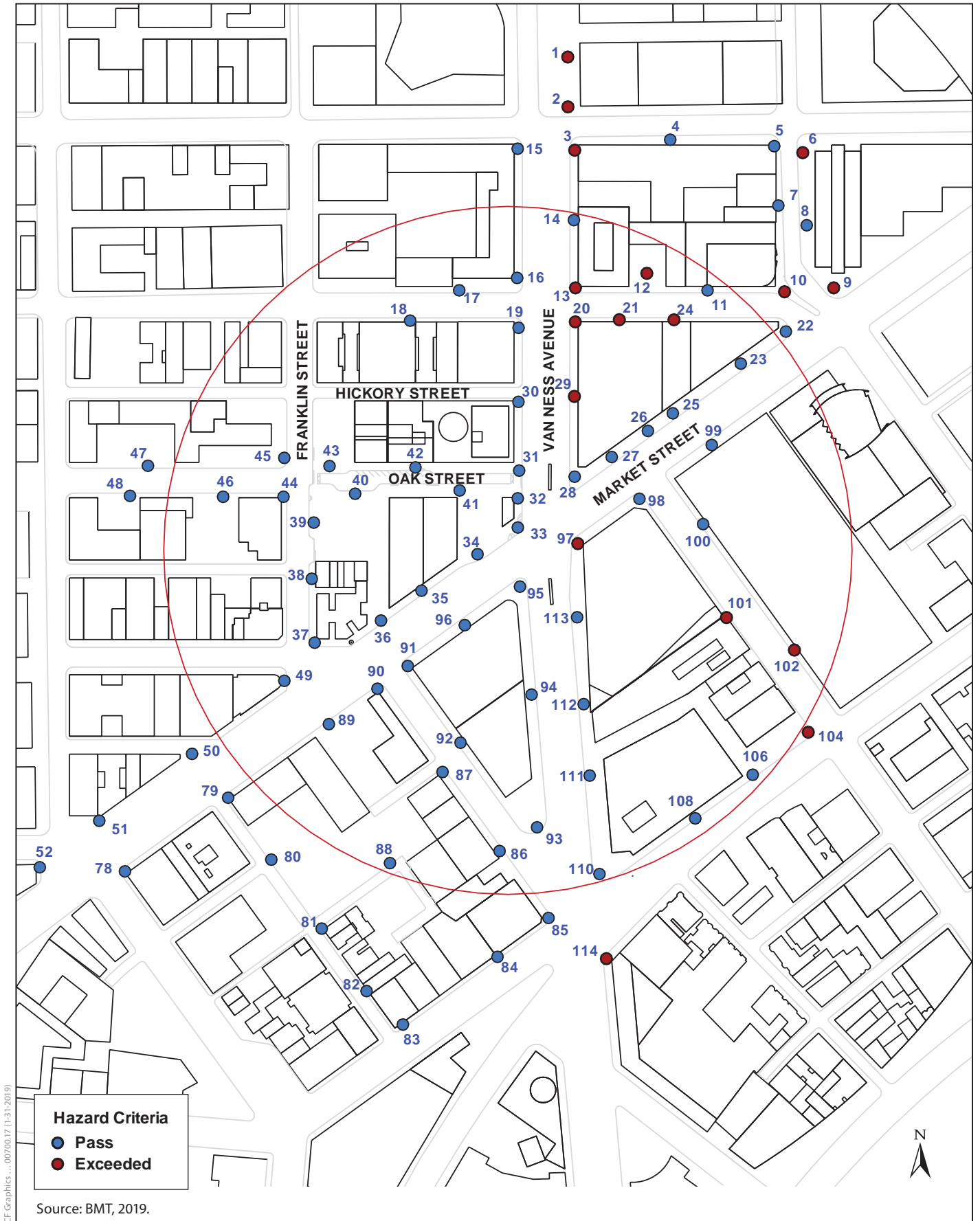
a. project-specific test points

³⁵ As noted above, the 98 Franklin Street wind study includes the Existing plus 98 Franklin Street Project Scenario and the Existing plus 98 Franklin Street Project with Mitigation Scenario. As a result of the findings in the wind study, the proposed measures to reduce wind impacts are now included as part of the 98 Franklin Street Project. Therefore, only one scenario for the 98 Franklin Street Project is analyzed in this section.



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Figure 3.E-10
Existing + 98 Franklin Street Project
Wind Comfort Conditions



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Figure 3.E-11
Existing Pedestrian Wind Hazard Conditions
(98 Franklin)

Within the Existing Scenario, wind conditions exceed the hazard criterion at 17 out of 85 test points. The total number of hazard exceedance hours is 457, as shown in **Table 3.E-6**, p. 3.E-31. The wind conditions at nine out of 58 total project-specific test points within the reduced radius exceed the hazard criterion. The total number of hazard exceedance hours is 305. **Figure 3.E-11**, p. 3.E-33, depicts the existing wind hazard conditions for people walking.

The number of test points in which wind conditions exceed the hazard criterion would be decreased from 17 in the Existing Scenario to 14 in the Existing plus 98 Franklin Street Project Scenario. Additionally, the total duration of hazardous wind conditions would be decreased from 457 hours to 427 hours, representing a net decrease of 30 hours of hazardous wind conditions compared to the Existing Scenario (see **Table 3.E-6**, p. 3.E-31, and **Figure 3.E-12**). The wind conditions at project-specific test points within the reduced radius that would exceed the hazard criterion would be reduced from nine in the Existing Scenario to eight in the Existing plus 98 Franklin Street Project Scenario. The total duration of hazardous wind conditions would be decreased from 305 hours to 289 hours, representing a net decrease of 16 hours of hazardous wind conditions compared to Existing Scenario.

Conclusion

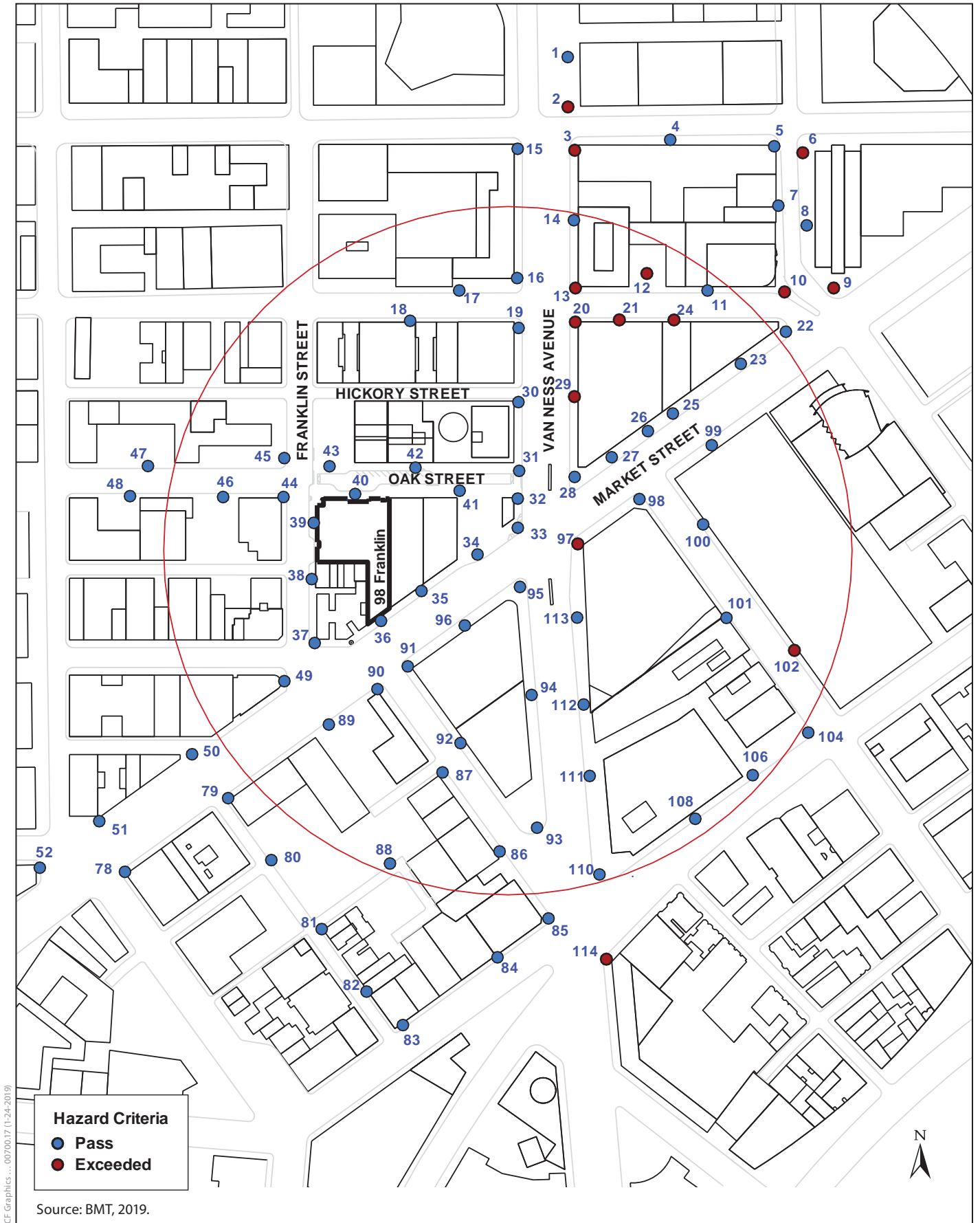
The 98 Franklin Street Project would result in a slight net decrease of test locations exceeding the wind hazard criterion. In addition, the total number of hours with hazardous wind conditions would be reduced under the 98 Franklin Street Project. The 98 Franklin Street Project would include evergreen trees along Franklin and Oak streets, four replacement evergreen trees along Oak Street, and a canopy along the western façade of the project (along Franklin Street). The proposed landscaping is expected to improve wind hazard conditions compared with the Existing Scenario. However, because the proposed landscaping is not guaranteed to be maintained during operation of the 98 Franklin Street Project, impacts would be *significant*.

MITIGATION MEASURES

Mitigation Measure M-WI-1b, as listed above under Impact WI-1, will be implemented for the 98 Franklin Street Project.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure M-WI-1b, as listed above under Impact WI-1, requires a maintenance plan for landscaping and wind baffling measures in the public right-of-way. This mitigation measure would reduce the potential for a net increase in wind hazard exceedances and the hours of wind hazard exceedances through a specific maintenance plan to ensure wind baffling in perpetuity. Therefore, the wind impact from the 98 Franklin Street Project would be reduced to *less than significant with mitigation*.



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Figure 3.E-12
Existing + 98 Franklin Street Project
Wind Hazard Conditions

CUMULATIVE IMPACTS

Impact C-WI-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts. (Significant and Unavoidable with Mitigation)

The cumulative conditions were modeled in the Hub Plan wind study by RWDI. As discussed above, in addition to the Hub Plan buildings, the 30 Van Ness Avenue Project, and the 98 Franklin Street Project, the cumulative analysis also includes anticipated future buildings that had not begun construction as of May 2018.³⁶

WIND COMFORT

Table 3.E-7 presents the comfort analysis results for people walking for both the Existing and Cumulative scenarios. However, the table only provides a summary of the averages and total wind comfort exceedances for all 160 measurement locations. The results of the wind comfort conditions for all measurement locations is included in Appendix G-1. Figure 3.E-13 shows the cumulative wind comfort conditions for people walking.

TABLE 3.E-7. CUMULATIVE WIND COMFORT CONDITIONS

Existing			Cumulative			
Average Wind Speed Exceeded 10% of Time (mph)	Average % of Time Wind Speed Exceeds 11 Miles per Hour (%)	Exceedances	Average Wind Speed Exceeded 10% of Time (mph)	Average % of Time Wind Speed Exceeds 11 Miles per Hour (%)	Speed Change Relative to Existing (mph)	Exceedances
14	21	114	15	24	1	120

Source: RWDI, 2019

³⁶ As discussed above, the cumulative condition analyzed in this section assumes that the 10 South Van Ness Avenue property would be constructed with a 590-foot-tall single tower. An analysis of the 400-foot-tall double tower is included in Appendix G-1.

INDIVIDUAL PROJECT SITE BUILDINGS:

- 1: 30 Van Ness Avenue
- 2: 98 Franklin Street

HUB PLAN PROGRAMMATIC SITE BUILDINGS:

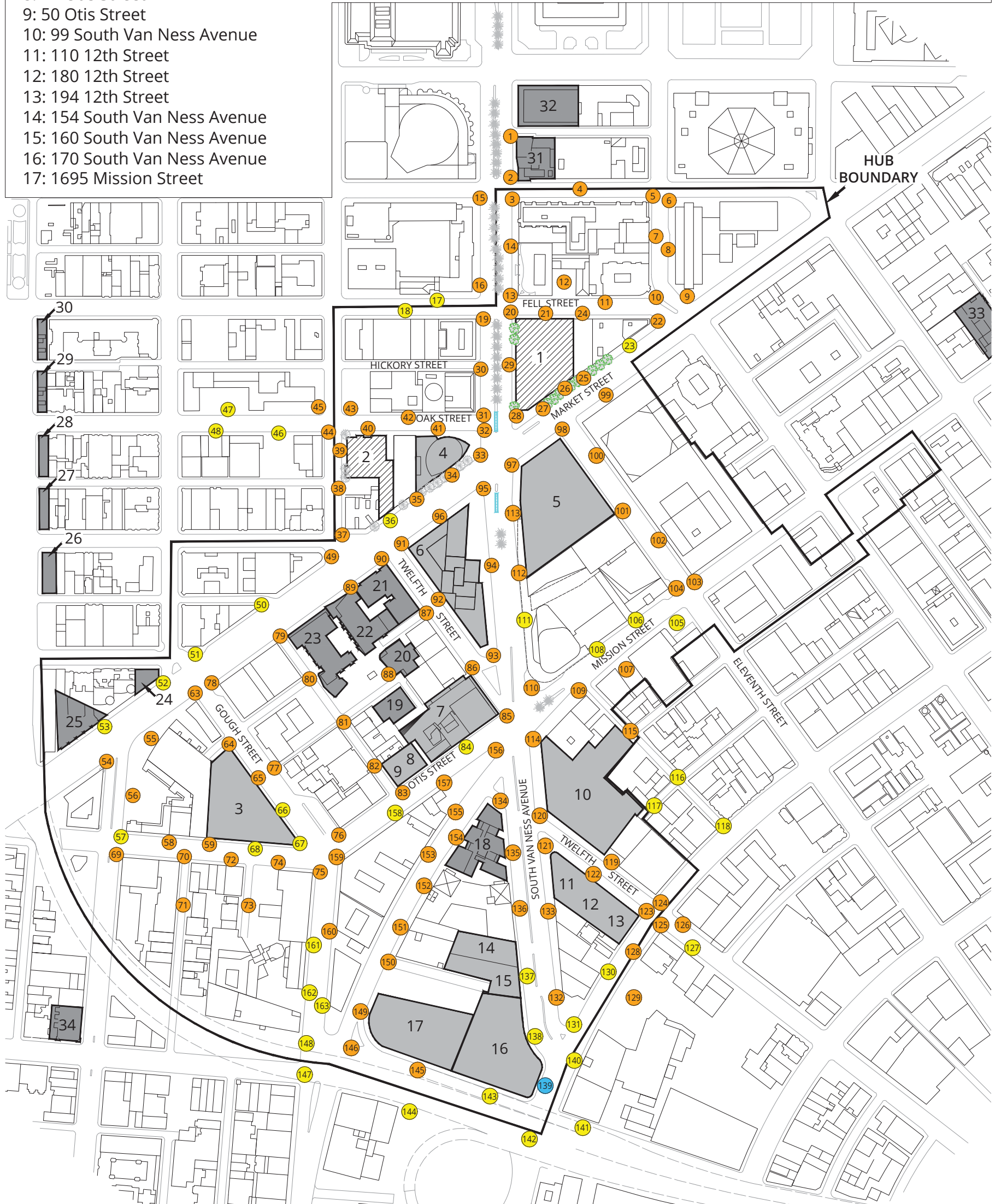
- 3. 33 Gough Street
- 4: 1500-1540 Market Street
- 5: 1 South Van Ness Avenue (DWG on File)
- 6: 10 South Van Ness Avenue (Single Tower)
- 7: 30 Otis Street
- 8: 42 Otis Street
- 9: 50 Otis Street
- 10: 99 South Van Ness Avenue
- 11: 110 12th Street
- 12: 180 12th Street
- 13: 194 12th Street
- 14: 154 South Van Ness Avenue
- 15: 160 South Van Ness Avenue
- 16: 170 South Van Ness Avenue
- 17: 1695 Mission Street

CUMULATIVE BUILDINGS:

- 18. 1601 Mission Street
- 19. 1629 Market Street Colton Affordable
- 20. 1629 Market Street Building D
- 21. 1629 Market Street Building C
- 22. 1629 Market Street Building B
- 23. 1629 Market Street Building A
- 24. 1700 Market Street
- 25. 1704 Market Street
- 26. 188 Octavia Street

27. Parcel R.

- 28. Parcel S.
- 29. 300-350 Octavia Street
- 30. 300-350 Octavia Street
- 31. 200-214 Van Ness Avenue
- 32. Grove + Van Ness Avenue
- 33. 1270 Mission Street
- 34. 198 Valencia Street



LEGEND:

COMFORT CATEGORIES:

- 1 - 7 mph — [Blue Box]
- 8 - 11 mph — [Yellow Box]
- > 11 mph — [Orange Box]

SENSOR LOCATION:

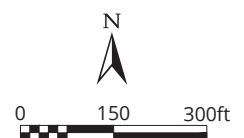
- Grade Level

MITIGATION:

- ☀ Existing Landscaping
- ☀ Van Ness Corridor Transit Improvement Project Landscaping
- ☀ Van Ness Corridor Transit Improvement Project Bus Shelter
- ☀ Proposed Landscaping

- ▨ Individual Project

Source: RWDI, 2019.



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The addition of the cumulative project in the surrounding area would result in wind speeds similar to the existing and existing-plus-Hub Plan configurations, as discussed in Impact WI-1, above. Under the Existing Scenario, wind speeds would exceed the planning code’s comfort criterion of 11 mph for people walking at 114 test locations. Under the Cumulative Scenario, the average 90th percentile wind speed for the 160 test locations would be 15 mph, with the wind speeds at 120 test locations exceeding the planning code’s comfort criterion of 11 mph for people walking. However, the Cumulative Scenario would eliminate existing wind comfort exceedances at 19 locations; therefore, the Cumulative Scenario would result in a net increase of 6 test locations as compared to the existing conditions. Winds would exceed the criterion approximately 24 percent of the time, representing a 3 percent increase compared to existing conditions.

WIND HAZARD

Table 3.E-8 presents the wind hazard analysis results for existing and cumulative conditions and lists the predicted wind speed to be exceeded one hour per year. However, the table only provides a summary of the averages and total wind hazard exceedances for all 160 measurement locations. The results of the wind hazard conditions for all measurement locations is included in Appendix G-1. The predicted number of hours per year that the section 148 wind hazard criterion (one-minute wind speed of 36 mph) is also provided. **Figure 3.E-14**, p. 3.E-41, shows the cumulative wind hazard conditions for people walking.

TABLE 3.E-8. CUMULATIVE WIND HAZARD CONDITIONS

Existing			Cumulative			
Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours/Year Wind Speed Exceeds Hazard Criterion	Total Exceedances	Average Wind Speed Exceeded 1 Hour/Year (mph)	Total Hours/Year Wind Speed Exceeds Hazard Criterion	Hours Change Relative to Existing	Exceedances
27	567	21	29	888	321	36

Source: RWDI, 2019

The addition of the cumulative projects would result in 36 locations that exceed the one-hour per year hazard criterion, with 24 additional locations as compared to existing conditions. However, wind hazard exceedances would be eliminated at 9 locations with implementation of the Cumulative Scenario, resulting in a net increase of wind hazard exceedances of 15 locations compared to existing conditions. The total number of hours per year when winds would exceed the applicable hazard criterion would increase by 321 compared with the existing configuration

(Table 3.E-8, p. 3.E-39, and Figure 3.E-14, p. 3.E-41), for a total of 888 hours. The new locations resulting from the Cumulative Scenario are in mostly in the same locations as the existing-plus-Hub Plan configuration with the exception of Locations 1, 34 and 132, and additionally at 10 South Van Ness Avenue (Location 92) and 1601 Mission Street (Locations 121, 133, 134 and 155).

CONCLUSION

Because the exact contribution of the 30 Van Ness Avenue Project and the 98 Franklin Street Project to the cumulative wind environment is unknown, it is conservatively assumed that these two individual projects would contribute to a cumulatively considerable impact. The Hub Plan, in combination with other reasonably foreseeable projects, would also result in a cumulatively considerable impact.

Mitigation Measures

Implementation of Mitigation Measures M-WI-1a (for buildings with a height of more than 85 feet) and M-WI-1b, as described in Impact WI-1, above, would reduce the potential for a net increase in wind hazard exceedances and the hours of wind hazard exceedances. Future projects in the Hub Plan area would be required to comply with section 148.

Significance After Mitigation

However, compliance with section 148 does not guarantee that cumulative impacts would not result. The specific design for subsequent reasonably foreseeable projects, when proposed, would be required not to exceed the wind hazard criterion specified in section 148. Building articulation and landscaping features for subsequent development projects could eliminate new hazard criterion exceedances for future projects. Although future project mitigation and/or design modifications would be based on a test of existing conditions (i.e., when a future project is proposed), using section 148 alone, they would not consider other foreseeable buildings in the area. Therefore, it cannot be stated with certainty that each subsequent development project would not contribute to a cumulative impact without substantial modifications to individual project design and programs. In conclusion, the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project would result in a cumulatively considerable contribution, and impacts would be *significant and unavoidable with mitigation*.

INDIVIDUAL PROJECT SITE BUILDINGS:

- 1: 30 Van Ness Avenue
- 2: 98 Franklin Street

HUB PLAN PROGRAMMATIC SITE BUILDINGS:

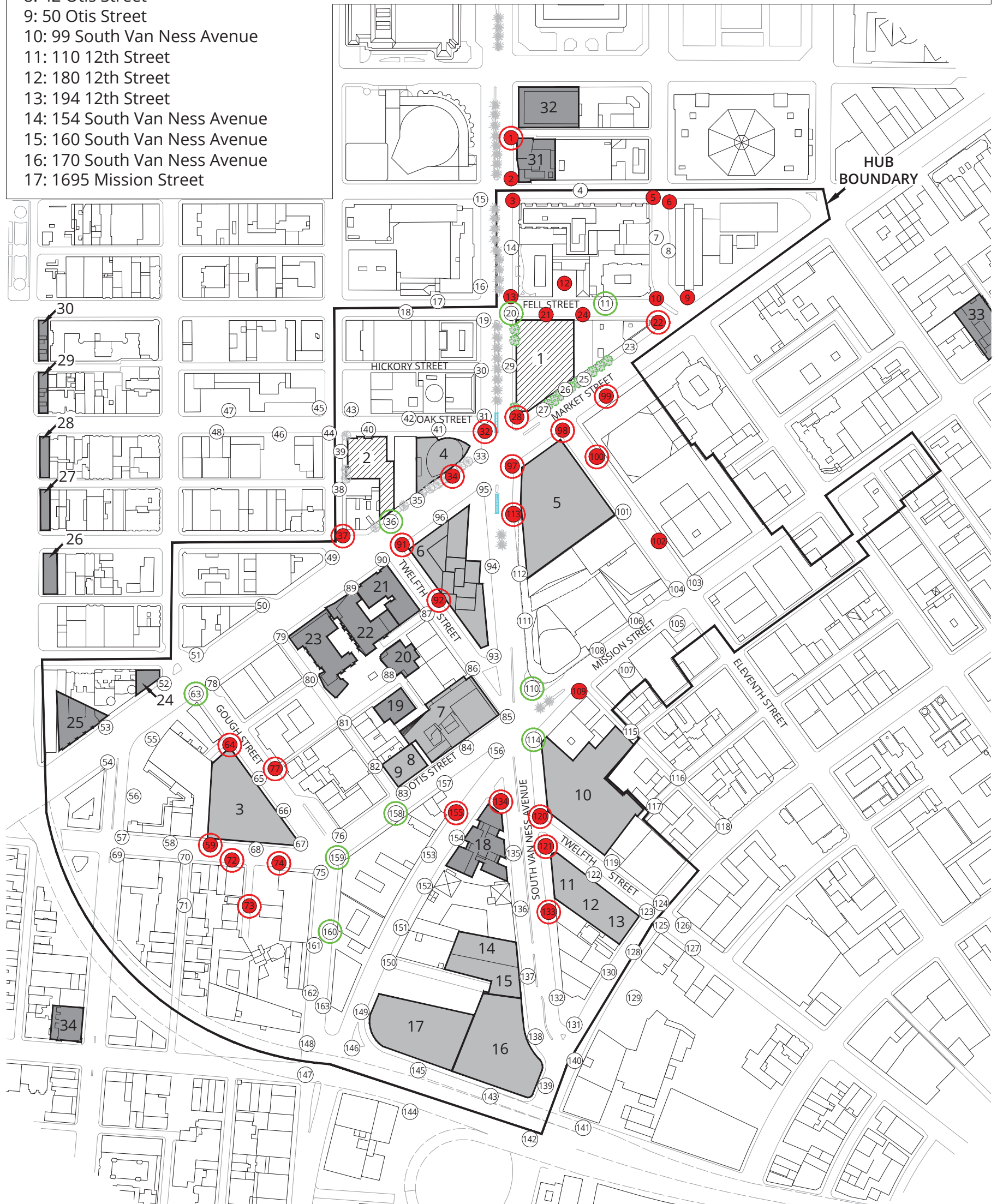
- 3. 33 Gough Street
- 4: 1500-1540 Market Street
- 5: 1 South Van Ness Avenue (DWG on File)
- 6: 10 South Van Ness Avenue (Single Tower)
- 7: 30 Otis Street
- 8: 42 Otis Street
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- 16: 170 South Van Ness Avenue
- 17: 1695 Mission Street

CUMULATIVE BUILDINGS:

- 18. 1601 Mission Street
- 19. 1629 Market Street Colton Affordable
- 20. 1629 Market Street Building D
- 21. 1629 Market Street Building C
- 22. 1629 Market Street Building B
- 23. 1629 Market Street Building A
- 24. 1700 Market Street
- 25. 1704 Market Street
- 26. 188 Octavia Street

27. Parcel R.

- 28. Parcel S.
- 29. 300-350 Octavia Street
- 30. 300-350 Octavia Street
- 31. 200-214 Van Ness Avenue
- 32. Grove + Van Ness Avenue
- 33. 1270 Mission Street
- 34. 198 Valencia Street



LEGEND:

- | | | | |
|---------------------------|-------------------------|---|---|
| HAZARD CATEGORIES: | SENSOR LOCATION: | MITIGATION: | |
| Pass | Grade Level | Existing Landscaping | Individual Project |
| Exceeded | | Van Ness Corridor Transit Improvement Project Landscaping | Addition of Hazard in Relation to Existing |
| | | Van Ness Corridor Transit Improvement Project Bus Shelter | Reduction of Hazard in Relation to Existing |
| | | Proposed Landscaping | |

Source: RWDI, 2019.

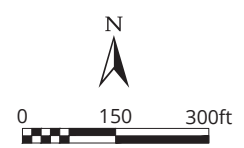


Figure 3.E-14
Cumulative Pedestrian Wind Hazard Conditions

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3.F SHADOW

This section of the EIR analyzes potential shadow impacts that could occur as a result of the Hub Plan,¹ the two individual development projects, the Hub Housing Sustainability District (HSD), and cumulative conditions. The analysis assesses the potential for implementation of the Hub Plan, two individual development projects, and Hub HSD to adversely affect existing shadow patterns compared to existing conditions and under cumulative conditions. The section discusses the environmental setting, regulatory framework, environmental impacts, and mitigation measures for shadow.

In addition, this section describes the potential shadow effects on publicly accessible areas, including public parks, publicly accessible private open space, and sidewalks. The analysis describes the physical impacts of new shadow, qualitatively assesses the potential shadow impacts on the use of the affected open spaces, and discusses planning code section 295, which protects certain public open spaces under the jurisdiction of the Recreation and Parks Commission from shadowing by new structures greater than 40 feet tall. The shadow findings in this section are based on the *Shadow Analysis Report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR* (Shadow Study) prepared by Prevision Design (Appendix H-1).² In addition, two subsequent memoranda were prepared by Prevision Design to address design changes to 170 Otis Street³ under the Hub Plan and the 30 Van Ness Avenue Project and the reduced impact on Civic Center Plaza.⁴

The City and County of San Francisco (City) received no comments related to shadow on the Notice of Preparation (Appendix A) issued for the Hub Plan, the two individual development projects, and the Hub HSD.

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

² Prevision Design, *Shadow Analysis Report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD) EIR*, February 11, 2019.

³ Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in Hub Plan shadow due to proposed zoning height modification of 170 Otis Street." April 22, 2019.

⁴ Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in shadow effects of the revised 30 Van Ness Avenue Project on Civic Center Plaza relative to the prior version of the 30 Van Ness Avenue Project analyzed in the Shadow analysis report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD) EIR (February 11, 2019)." June 5, 2019.

ENVIRONMENTAL SETTING

In an urban environment, shadow is a function of the height, size, and massing of buildings, as well as other elements of the built environment, and the angle of the sun. The angle of the sun varies with the time of day (from rotation of the earth) and the change in seasons (from the earth's elliptical orbit around the sun and its tilted axis). The longer midday shadows are cast during the winter (when the midday sun is lowest in the sky), and the shorter midday shadows are cast during the summer (when the midday sun is higher in the sky). At the time of the summer solstice (approximately June 21 of every year), the midday sun is highest in the sky. The longest day and shortest night occur on this date. Conversely, the shortest day and longest night occur on the winter solstice (approximately December 21 of every year). The vernal/autumnal equinoxes (when day and night are equal in length) represent the halfway point between solstices. Therefore, measuring shadow lengths during the summer and winter solstices captures the extremes for the shadow patterns that occur throughout the year.

The difference between the current levels of shading and the levels that would be present with the addition of a project yields the total annual increase, measured in square foot hours (sfh) of shadow. This increase is taken as a percentage of the existing total annual available sunlight in the park or open space (i.e., the amount of sun that would fall on the park or open space throughout the year if there were no shading present at any time) and used to determine the existing versus relative increase in new shadows created by a project.

AFFECTED PUBLICLY ACCESSIBLE OPEN SPACES

There are several parks, recreational facilities, and open spaces in the vicinity of the Hub Plan area, as shown in **Figure 3.F-1**. As discussed in more detail below, the total area within which net new shadow would be cast by the Hub Plan, two individual development projects, and Hub HSD would extend from near the intersections of Fillmore Street/Waller Street to the southwest, Eddy Street/Webster Street to the northwest, Mission Street/Fifth Street to the northeast, and Brannan Street/Eighth Street to the southeast. Within the area, there are a total of 18 publicly accessible open spaces under the jurisdiction of the San Francisco Recreation and Park Department (RPD), City and County of San Francisco Real Estate Division (SFRED), San Francisco Public Works (public works), San Francisco Unified School District (SFUSD), as well as privately owned public open spaces (POPOS). The following includes a description of each of the open spaces affected by net new shadows as a result of the Hub Plan and the existing shadow conditions at each park.



Affected Parks and Open Spaces

- ① Jefferson Square Park
- ② Margaret Hayward Playground
- ③ Buchanan Street Mall
- ④ Ella Hill Hutch Community Center
- ⑤ Hayes Valley Playground
- ⑥ Koshland Community Park
- ⑦ John Muir Elementary School
- ⑧ Page and Laguna Mini Park
- ⑨ Patricia's Green
- ⑩ McCoppin Hub
- ⑪ SOMA West Skate and Dog Park
- ⑫ Brady Park (Proposed)
- ⑬ Civic Center Plaza
- ⑭ 11th/Natoma Park (Proposed)
- ⑮ United Nations Plaza
- ⑯ Howard and Langton Mini Park
- ⑰ Gene Friend Rec Center
- ⑱ Victoria Manalo Draves Park



Source: PreVision Design, 2019.

ICF Graphics... 0070017 (6-12-2019)

Figure 3.F-1
Map of Affected Parks and Open Spaces

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Jefferson Square Park (Location 1). Jefferson Square Park is a 5.64-acre (245,779-square-foot [sf]) public park under the jurisdiction of the RPD. The urban park, located in the Western Addition neighborhood, is bounded by Eddy Street to the north, Turk Street to the south, Gough Street to the east, and Laguna Street to the west. It is not fenced, but the official hours of operation are from 5 a.m. to 12 a.m. (midnight). The park contains grassy and landscaped areas, paved walkways and stairs, eight benches, areas for active and passive uses, and centrally located off-leash dog play areas. The terrain slopes uphill to the northern side the park and is primarily composed of open grassy areas punctuated by approximately 80 trees, which range from saplings to fully mature with dense canopies. The center of the park features a small plaza, and public entrances and exits are located on each of the four corners of the park as well as mid-block on the northern and southern frontages. At the southern entrances, pathways branch out in three directions, diagonally bisecting the lower half of the park and running parallel to the public sidewalks along Laguna, Turk, and Gough streets. The pathways stemming from the northern entrances run parallel to the public sidewalks.

Under current conditions, the park receives 12,285,411 annual sfh of shadow. Based on a calculated theoretical annual available sunlight (TAAS) of 914,640,537 sfh, Jefferson Square Park's existing annual shadow load is 1.3432 percent of its TAAS.⁵ Existing shadow patterns include early morning shadow cast on the eastern half of the park and late afternoon/evening shadow cast along the western edge, with little to no midday shadow year-round.

Margaret Hayward Playground (Location 2). Margaret Hayward Playground is a public park under the jurisdiction of the RPD. The 5.04-acre (219,632 sf) urban park, located in the Western Addition neighborhood, is bounded by Turk Street to the north, Golden Gate Avenue to the south, Gough Street to the east, and Laguna Street to the west. The official hours of operation are from 8 a.m. to 8 p.m. The park features include two tennis courts in the northwest corner of the park, two baseball/softball fields covering the eastern half of the park, and a children's playground in the southwest corner. Along the southern edge of the park, there is a grassy area with six fixed benches adjacent to the playground, a multipurpose hard-court area for basketball and/or soccer and other landscaped areas, paved walkways, and stairs. A historic clubhouse building used for after-school programs is located between the children's play area and the tennis courts. Six gated park entries are located in two locations along Turk Street, Laguna Street, and Golden Gate Avenue, respectively.

⁵ In San Francisco, shadow is quantitatively measured, in units called square foot hours, by multiplying the area of the shadow by the amount of time the shadow is present on the open space. Determining the annual net new shadow load generated by a project begins with a calculation of the number of square foot hours, summed over the course of a year, that sunlight would theoretically fall on a qualifying publicly accessible open space each day from an hour after sunrise to an hour before sunset, ignoring shadow from all sources. This total is referred to as the theoretical annual available sunlight.

Under current conditions, the park receives 119,743,771 annual sfh of shadow. Based on a calculated TAAS of 817,340,694 sfh, Margaret Hayward Playground's existing annual shadow load is 14.65 percent of its TAAS. Existing shadow patterns include longer early morning shadow cast on the eastern half of the park as well as over the tennis courts (cast by a private structure located mid-block) and late afternoon/evening shadow cast along the western edge of the space. Midday shadows are lesser and primarily cast by the mid-block structures as well as other smaller structures within the park itself.

Buchanan Street Mall (Location 3). The Buchanan Street Mall is a six-block public greenway under the jurisdiction of the RPD. Located in the Western Addition neighborhood, the greenway extends over six blocks and is bisected into five separate sections by Fulton Street, McAllister Street, Golden Gate Avenue, and Turk Street. The Buchanan Street Mall has a combined area of 1.81 acres (78,926 sf). The mall is not fenced; however, the official hours of operation are from 5 a.m. to 12 a.m. (midnight). The mall features a paved promenade that winds between raised feature areas, some of which are grass, trees and/or landscaping, and three of which contain enclosed children's playgrounds. The portion of the mall running between McAllister Street and Golden Gate Avenue borders and gives access to the Ella Hutch Hill Community Center.

Under current conditions, the park receives 76,753,027 annual sfh of shadow. Based on a calculated TAAS of 293,714,171 sfh, Buchanan Street Mall's existing annual shadow load is 26.13 percent of its TAAS. Existing shadow patterns year-round involve the majority of the park in shadow early and again late in the day with little to no shadows falling around midday.

Ella Hill Hutch Center (Location 4). Ella Hill Hutch Community Center is a publicly accessible community recreational facility under the jurisdiction of SFRED. The community center is located on a 2.34-acre (102,094 sf) site located in the Western Addition neighborhood. It is bounded by Golden Gate Avenue to the north, McAllister Street to the south, the Buchanan Street Mall to the east, and Webster Street to the west. The northwest corner of the site contains a landscaped entry plaza area, with paved winding pathways connecting the sidewalks on Golden Gate Avenue and Webster Street to the community center building. The paths are interspersed with grassy areas, approximately six trees, and 14 fixed benches and six fixed park tables. The grounds surrounding the community center building contain multipurpose paved play areas and a children's play structure. On the northeast corner of the site are four tennis courts surrounded by tall fencing. The eastern edge of the site borders the Buchanan Street Mall.

The Ella Hill Hutch Center is under the jurisdiction of SFRED. Existing shadow patterns include early morning shadow falling over most portions of the park from the community center building and other buildings to the east and late afternoon/evening shadow cast again by the community center building as well as development to the west. The park experiences little to

no midday shadow year-round. Since this public open space is not under the jurisdiction of RPD, neither quantitative shadow calculations nor use observation visits were conducted.⁶

Hayes Valley Playground (Location 5). Hayes Valley Playground is a public park under the jurisdiction of the RPD. The 0.61-acre (26,589 sf) urban park, located in the Western Addition neighborhood, is bounded by Hayes Street to the north, Linden Street to the south, and Buchanan Street to the west. The park is fenced and posted hours of operation are from 7:30 a.m. to 9:30 p.m. Public entrances to the park are located at the northwest corner at the intersection of Hayes and Buchanan streets, the southeast corner on Linden Street, and on the north side along Hayes Street. Centrally located accessible ramps connect upper and lower terraces and can be reached via any of the park entrances.

Hayes Valley Playground rests on a terraced site with a clubhouse, playground areas, exercise equipment, and basketball/tennis courts. Several trees with dense canopies line the park along both Hayes and Linden streets. On the western (upper) level of the park, there are two designated playground areas, one for older vs. younger children with playground equipment and poured rubber paving. Also on this level is a 2,500 sf clubhouse with a stage and plaza area. A full-size basketball and tennis court occupy the eastern (lower) half of the park. Several exercise stations exist between sport courts and playground equipment. There are multiple strength training stations, pull-up bars, and stationary elliptical machines.

Under current conditions, the park receives 32,936,946 annual sfh of shadow. Based on a calculated TAAS of 98,948,423 sfh, Hayes Valley Playground's existing annual shadow load is 33.29 percent of its TAAS. Existing shadow patterns include early morning shadow falling over most portions of the park from the clubhouse building and other buildings to the east and late afternoon/evening shadow cast again by the clubhouse building as well as development to the west. The park experiences little midday shadow over summer months, with some additional shadow encroaching from buildings to the south over spring, fall, and winter months.

Koshland Community Park (Location 6). The Koshland Community Park is a public park under the jurisdiction of the RPD. The 0.82-acre (35,743 sf) urban park, located in the Western Addition neighborhood, occupies the northwest corner of the block and is bounded by Page Street to the north, Buchanan Street to the west, and private development along its eastern and southern borders. The park is not fenced, and the posted hours of operation are from sunrise to sunset. Entrances to Koshland Community Park are through a gate and stairs on Page Street as well as several points along Buchanan Street. The pathway diagonally bisects the upper and lower halves of the park. A half-court basketball area and playground sit on the Koshland Community Park's highest elevation and a community garden which can be accessed via terraced steps, a serpentine

⁶ As discussed in further detail below (Regulatory Framework), section 295 of the planning code, the Sunlight Ordinance, protects certain public open spaces from shadowing by new structures. Public open space not under the jurisdiction of RDP does not require quantitative analysis.

pathway, or several steps through the Page Street entrance occupies the sites eastern most border. A playground area featuring jungle gym and sand pit is centrally located in the park, which includes a tire swing, slide, and monkey bars. A community garden with vegetables, flowers and shrubbery occupies the eastern border of the park.

Under current conditions, the park receives 20,546,822 annual sfh of shadow. Based on a calculated TAAS of 133,014,951 sfh, Koshland Community Park's existing annual shadow load is 15.45 percent of its TAAS. Existing shadow patterns include very low levels of shadow falling throughout most of the day until late afternoon, when the western half of the park is cast in shadow. Spring and fall follow a similar pattern with most shadow falling over winter months.

John Muir Elementary School (Location 7). The John Muir Elementary School is a public school under the jurisdiction of SFUSD. As a participant in the SF Shared Schoolyard program, its approximately 0.47 acre (20,300 sf) of outdoor playground area is made open to the public on weekends between 9 a.m. and 4 p.m. The playground stretches north-south between Oak and Page streets, and is bounded by the main school building on the west and residential development to the east. The playground is bounded on all sides by buildings, walls, and fences, with the only publicly-accessible point of public entry being along Page Street. The playground is paved except for a few areas of landscape planting, with a full basketball court located in the center of the space surrounded by other multi-use courts. On the northern half of the playground are two children's play structures and on the southern portion of the playground is a seating area with fixed picnic tables as well as a small vehicle parking area.

Under current conditions, the John Muir Elementary School Playground is partially shaded during morning hours from development to the east, substantially unshaded throughout midday hours with progressive shading throughout the afternoon from the main school building. Since this public open space is not under the jurisdiction of RPD, neither quantitative shadow calculations nor use observation visits were conducted.

Page and Laguna Mini Park (Location 8). Page and Laguna Mini Park is a 6,600 sf urban park located in the Western Addition neighborhood and is under the jurisdiction of the RPD. It is located mid-block with residences east and west and is bounded by Page Street to the north and Rose Street to the south. Page and Laguna Mini Park is enclosed by fences, one along Rose Street and another that bisects the site from east to west. Posted signage indicates that the park hours are from 6 a.m. to 10 p.m. The mini park has two entrances, one on Page Street and one on Rose Street. The entrances are connected by a path, creating a pedestrian connection between the two streets. The mini park features two fixed benches, a designated community gardening area, and several trees ranging in size from small shrubbery to deciduous trees with larger canopies.

Under current conditions the park receives 12,469,084 annual sfh of shadow. Based on a calculated TAAS of 24,543,248 sfh, Page and Laguna Mini Park's existing annual shadow load is

50.80 percent of its TAAS. Existing shadow patterns include morning, afternoon, and evening shadow falling over the majority the park with little shadow around midday, year-round.

Patricia's Green (Location 9). Patricia's Green is a public park under the jurisdiction of the RPD. The 0.41-acre urban park, located in the Western Addition/Hayes Valley neighborhood, extends generally north-south and is bounded by Octavia Street to the east and west, Hayes Street to the north, and Fell Street to the south. The park is divided into three sections. In the northern section of the park there is a picnic seating area located along Hayes Street. It features a plaza with four picnic tables around a mature tree and a mix of wooden and concrete benches. Two additional picnic tables are located on the western side of this area along Octavia Street next to restaurants. The central section is located where the park intersects Linden Street. It contains a circular plaza with four concrete benches and eight bollards, and functions as the area for art installations. To the north and south of the center plaza are lawns. The southern section of the park contains a children's play area, which features a dome structure with ropes and bars for climbing and poured rubber safety paving. Low concrete square pillars delineate the play area and lawn, and a metal fence encloses the Fell Street side. A service building is located at the southwest corner of the park. On the periphery of the park are concrete ledges and benches interspersed with approximately 24 trees and plantings.

Under current conditions the park receives 12,029,525 annual sfh of shadow. Based on a calculated TAAS of 66,622,661 sfh, Patricia's Green's existing annual shadow load is 18.06 percent of its TAAS. The park currently experiences higher levels of shading in the early mornings and late afternoons but is otherwise predominantly unshaded from late morning through mid-afternoon year-round.

McCoppin Hub (Location 10). McCoppin Hub is a 0.1-acre (4,554 sf) open space under the jurisdiction of public works.⁷ McCoppin Hub extends east-west at the cul-de-sac where McCoppin Street terminates at the Central Freeway, and it is bounded by Valencia Street to the east. McCoppin Hub fronts Valencia Street with a secondary entrance via a path off Market Street. The daily hours of operation are 8 a.m. to 10 p.m. McCoppin Hub features seating, palm trees, light landscaping, and landings for food trucks, art/craft display tables, and tents for live music performances. Seating is located within the middle area and is composed of seven raised planters with ledges, shrubs, and palm trees, and five two-seat benches. A bench is fixed to the five middle-raised planters, with the placement of each bench alternating from the north to the south end, starting at Valencia Street and extending toward the Central Freeway. The west end, on the edge of the Central Freeway, features a lightly landscaped area with shrubs and three trees.

Existing shadow patterns include substantial to complete early morning shadow cast across the park, with lesser midday shadow then shadows encroaching from the west in afternoon, year-

⁷ As of winter 2019 the open space was fenced off from public access by temporary fencing. The description contained here assumes that temporary fencing is not in place.

round. Because this public open space is not under the jurisdiction of RPD, neither quantitative shadow calculations nor use observation visits were conducted.

SoMa West Skate and Dog Park (Location 11). The SoMa West Skate and Dog Park is a 0.68-acre (29,528 sf) publicly accessible open space under the jurisdiction of public works. The park spans east-west between Valencia Street to the west and Otis Street to the east. The park is physically divided into two sections by Stevenson Street, the western portion is designated as a dog park and the eastern portion a skateboard park. Both sections are fenced, with daily hours of operation for the Dog Park being 5 a.m. to midnight and 9 a.m. to 9 p.m. for the skate park. The dog play area is composed of two separated areas, a smaller section designed for little dogs and a longer, larger section intended for bigger dogs. The skateboard portion of the park is entirely paved with concrete and sculpted for use by skateboarders. There are six large circular freeway support pillars in the skateboard area covered by murals.

Because of the park's location under an elevated freeway, existing shadow patterns include substantial shadow cast across the park during midday hours year-round, with partial sunlight cast in the early mornings and late afternoons. Since this public open space is not under the jurisdiction of RPD, neither quantitative shadow calculations nor use observation visits were conducted.

Future Brady Park (Location 12). The future Brady Park is a proposed POPOS that would be created as part of the 1629 Market Street Project. The park (along with connected public passages) would be approximately 0.46 acre (20,000 sf) in size at the corner of Brady and Colton streets, and to the south and west of the four proposed buildings that would compose the 1629 Market Street Project. The programming of the park calls for large areas of hardscape (pavers), interspersed with succulent gardens, landscape planting, sculpture, seating walls and other movable seating, a youth play structure and play surface, bike parking, and pedestrian access pathways through the project to Market and 12th streets.

The park will be surrounded on all sides by nearby buildings, which would cast shadows on the park in the early morning and in the afternoon with lower levels of shadow over the midday hours, year-round. The timing of construction is not known at this time. Since this publicly-accessible open space is not under the jurisdiction of RPD, quantitative shadow calculations were not conducted.

Civic Center Plaza (Location 13). Civic Center Plaza (also referred to as the Joseph L. Alioto Performing Arts Piazza) is a public park under the jurisdiction of the RPD. The 4.43-acre (192,933 sf) urban park, located in the Civic Center neighborhood, is west of San Francisco City Hall and bounded by McAllister Street to the north, Larkin Street to the east, Polk Street to the west, and Grove Street to the south. The plaza is not fenced, but the official hours of operation are from 5 a.m. to midnight. Approximately half of the plaza area is paved, but these areas are interspersed with rectangular lawns as well as an unpaved (dirt) section at the center of the park. To the north

and south of this central dirt section are approximately 200 small, densely spaced, but highly pruned trees. Approximately 10 larger trees are present in the southeastern corner of the park, and 8 similar trees are located in the northeastern portion of the park. Two recently renovated fenced-in children's play areas (known as the Hellen Diller Civic Center Playground) are located in the plaza; one is at the northeast corner and is for smaller children, and the other is at the southeast corner and is designed for older children. Both play areas contain poured rubber paving and play equipment as well as benches. The southern portion of the park contains a small rectangular area with some landscaping, as well as a bench wall used for seating. A café kiosk opened in 2018 in the southeast corner of the park with a small outdoor seating area on the east side. There is no formal entrance to Civic Center Plaza; most users enter at one of the four corners, or at the center along the Polk and Larkin Street frontages.

Under current conditions the park receives 84,652,671 annual sfh of shadow. Based on a calculated TAAS of 829,854,584 sfh, Civic Center Plaza's existing annual shadow load is 10.20 percent of its TAAS. Existing shadow patterns include early morning shadow falling across the eastern portion of the park and late afternoon/evening shadow cast from the western edge, with little to no midday shadow except over winter months, when shadows encroaching from the south are cast on the southern edge of the park.

Future 11th/Natoma Park Site (Location 14). In 2017 RPD acquired a property on 11th Street between Minna and Natoma streets. The site is currently occupied by buildings that would be demolished as part of converting this site to a future park. The programming of the park, environmental review, permitting, and timing of construction are not known at this time, but the site for this contemplated future park is analyzed quantitatively and graphically in this section because it is under the jurisdiction of RPD. The analysis is included for informational purposes.

Under current conditions the location of the proposed future park would receive (assuming the removal of existing buildings on site and full use of the site for a park) 16,085,624 annual sfh of shadow. Based on a calculated TAAS of 72,829,287 sfh, the 11th/Natoma Park Site's existing annual shadow load would be 22.09 percent of its TAAS. Existing shadow patterns include early morning and later afternoon shadow falling over the majority of the park, with little to no midday and early afternoon shadow year-round.

United Nations Plaza (Location 15). United Nations Plaza is a 2.35-acre (102,227 sf) urban plaza under the jurisdiction of public works and located in the Downtown/Civic Center neighborhood on the former Fulton and Leavenworth street roadway sites. The unfenced plaza is bounded by McAllister Street to the north, Market Street to the south, Charles J. Brenham Place to the east, and Hyde Street to the west. The plaza is irregularly shaped but has two principal axes: the east-west axis visually connects San Francisco City Hall with Market Street; a shorter north-south axis connects links Leavenworth Street to Market Street. The plaza consists of a wide brick-paved area, which is punctuated by raised planting areas with mature trees. Near the center of the plaza, there

is a terraced area with a sculptural fountain. On the western corner of the plaza as well on the southern side are entrances to the underground Civic Center BART and Muni stations.

Under current conditions, shadow patterns include early morning and later afternoon shadow falling over the majority of the plaza with little to no midday and early afternoon shadow year-round. Since this publicly-accessible open space is not under the jurisdiction of RPD, quantitative shadow calculations were not conducted.

Howard and Langton Mini Park (Location 16). Howard and Langton Mini Park is a public park/community garden under the jurisdiction of the RPD. RPD supports this space as one of 38 community gardens throughout the city as part of the Community Gardens Program.⁸ The 0.2-acre (9,204 sf) urban park located in the South of Market (SoMa) neighborhood and is bounded by Howard Street to the northwest, Langton Street to the northeast, and private residential buildings on the other two sides. Inside the garden are many raised planting beds separated by walking aisles. The park is secured by a tall fence with a locked gate on Langton Street near the corner of Howard Street. Access is restricted to community garden members or access for others by appointment.

Under current conditions the park receives 15,600,472 annual sfh of shadow. Based on a calculated TAAS of 38,026,625 sfh, Howard and Langton Mini Park's existing annual shadow load is 41.025 percent of its TAAS. Existing shadow patterns include early morning and later afternoon shadow falling over the majority of the plaza with little to no midday and early afternoon shadow year-round.

Gene Friend Recreation Center (Location 17). Gene Friend Recreation Center (formerly known as South of Market Park) is a public park under the jurisdiction of RPD. The 1.02-acre (44,351 sf) urban park, located in the SoMa neighborhood, occupies approximately half of the block bounded by Sixth Street to the northeast, Folsom Street to the southeast, Howard Street to the northwest, and Harriet Street to the southwest. The park is fenced, and although the daily hours of operation vary, the park is not open prior to 9 a.m. nor after 9 p.m. The park contains a sand-floor playground, a basketball court, lawn, and a recreation center that houses a gymnasium, activity room, and auditorium. There are entrances from Folsom and Harriet streets, and an entrance through the recreation center from Sixth Street. The basketball court and gymnasium are located in the northwest section of the park, with palm trees and benches lining the southwest edge of the court.

Under current conditions the park receives 79,707,759 annual sfh of shadow. Based on a calculated TAAS of 165,049,284 sfh, Gene Friend Recreation Center's existing annual shadow load is 48.2933 percent of its TAAS. Existing shadow patterns include early morning and later

⁸ San Francisco Recreation and Parks, Howard & Langton Mini Park Community Garden, <https://sfrecpark.org/destination/howard-langton-mini-park/>, accessed February 28, 2019.

afternoon shadow falling over the majority of the park with little to no midday and early afternoon shadow cast on open areas of the park year-round.

Victoria Manalo Draves Park (Location 18). Victoria Manalo Draves Park is a public park under the jurisdiction of RPD. The 2.53-acre (109,997 sf) urban park, located in the SoMa neighborhood, is bounded by Folsom Street to the northwest, Harrison Street to the southeast, Columbia Square to the northeast, and Sherman Street to the southwest. The park is enclosed by a 5-foot tall fence and locked at night. The stated hours of operation for Victoria Manalo Draves Park are from sunrise to sunset, 365 days per year. Victoria Manalo Draves Park's primary public entrance is located on the corner of Folsom Street and Columbia Square. The park includes walkways, a basketball court, a community garden, a ball field, and two children's play areas.

Under current conditions the park receives 26,337,361 annual sfh of shadow. Based on a calculated TAAS of 409,342,836 sfh, Victoria Manalo Draves Park's existing annual shadow load is 6.43 percent of its TAAS. Existing shadows are cast by buildings surrounding the park on all 4 sides, with the southern and eastern sides of the park cast in shadow during morning hours, few shadows throughout the midday hours, with increasing shadows entering the park's western and northern sides in the afternoon.

REGULATORY FRAMEWORK

There are no specific federal or state regulations relating to solar access (sunlight, not photovoltaic/solar panel) or shadow effects, but there are several local code provisions, policies, and procedures that regulate shadow, as detailed below.

SAN FRANCISCO GENERAL PLAN

Recreation and Open Space Element. The Recreation and Open Space Element of the City of San Francisco General Plan (1996) includes Policy 2.3, which requires that solar access to public open space be protected. The policy promotes protecting solar access and avoiding shade to maintain the usability of public open space, and states that the requirements of San Francisco Planning Code section 295 (discussed in detail below) apply to the review of projects that could shade RPD property.

Urban Design Element. Policy 3.4 in the general plan's Urban Design Element calls for the promotion of building forms that would respect and improve the integrity of open spaces and other public areas. Buildings to the south, east, and west of parks and plazas are to be limited in height or effectively oriented so as not to prevent the penetration of sunlight to such parks and plazas. Where feasible, large buildings and developments are to have ground-level open space that is well situated for public access and sunlight penetration.

PLANNING CODE SECTION 101.1 – GENERAL PLAN CONSISTENCY AND IMPLEMENTATION

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added section 101.1 to the planning code and established eight priority policies. These priority policies are the basis upon which inconsistencies in the general plan are resolved. Priority policy number 8 calls for the protection of parks and open space, and their access to sunlight and vistas.

Before issuing a permit for any project that requires an initial study under the California Environmental Quality Act (CEQA), or for any demolition, conversion, or change of use, and before taking any action that requires a finding of consistency with the general plan, the City is required to find that the proposed project or legislation would be consistent with the priority policies.

PLANNING CODE SECTION 295 – SUNLIGHT ORDINANCE

Section 295 of the planning code, the Sunlight Ordinance, was adopted through voter approval of Proposition K in November 1994 to protect certain public open spaces from shadowing by new structures. Section 295 effectively limits shadow on some City parks, requiring that specific findings be made before buildings greater than 40 feet in height can be approved that would shade property under the jurisdiction of or designated to be acquired by the Recreation and Park Commission, during the period from one hour after sunrise to one hour before sunset. Section 295(b) states that the Planning Commission, following a public hearing, “shall disapprove” any project governed by section 295 that would have an “adverse effect” due to shading of a park subject to this section, “unless it is determined that the impact would be insignificant.” The Planning Commission’s decision under section 295 cannot be made “until the general manager of the Recreation and Park Department in consultation with the Recreation and Park Commission has had an opportunity to review and comment to the City Planning Commission upon the proposed project.”

In 1989, the two commissions adopted shadow criteria for 14 downtown parks, including quantitative maximum shadow coverage (“Absolute Cumulative Limit”) for each open space and qualitative criteria for assessing new shadow.⁹ Although none of these 14 parks are within the Hub Plan area, Gene Friend Recreation Center (then known as SoMa Park) and Civic Center Plaza are the nearest parks to the Hub Plan area for which Absolute Cumulative Limits were established.

⁹ The sunlight on a park is measured in terms of “square foot hours” of sunlight, while the shadow load is measured in terms of “shadow foot hours.” A square foot hour of sunlight is one hour of sunlight on one square foot of ground, while a shadow foot hour represents one hour of shade on one square foot of ground.

OTHER PLANNING CODE SECTIONS

Planning code sections 146 and 147, both added in 1985, establish additional design guidelines for buildings in C-3 Downtown Commercial, South of Market Mixed Use, and Eastern Neighborhoods Mixed Use Districts for the purpose of limiting shadow on public sidewalks, public plazas, and other publicly accessible spaces other than those protected under section 295.

IMPACTS AND MITIGATION MEASURES

This section describes the impact analysis for the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project related to shadow. It describes the methods used to determine the impacts of the Hub Plan and two individual development projects, and lists the thresholds used to conclude whether an impact would be significant. It also discusses mitigation measures identified for significant impacts.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing City laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

SIGNIFICANCE CRITERIA

The following significance criterion is from Appendix B of the San Francisco Planning Department's (department's) Environmental Review Guidelines and is used to determine the level of impacts related to shadow. The Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project would have a significant shadow impact if they would:

- Create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.

The criteria for determining the significance of shadow impacts in the city pursuant to CEQA and section 295 of the planning code are different. Under planning code section 295 and the joint Planning Commission/Recreation and Park Commission criteria, any shadow above the cumulative shadow limit would be "significant" in the way that the term is used in section 295. In contrast, the CEQA significance criterion for environmental review addresses a broader array of shadow-related considerations that may include not only quantitative criteria but also

qualitative criteria, such as open space usage; the time of day and/or time of year that shadow would affect open space; physical layout of the affected facilities; the duration, size, shape, and location of the shadow; and the proportion of open space affected. If the department determines, based on these factors, that use and enjoyment of the park or public space would be substantially and adversely affected, the impact would be “significant,” in the way that the term is used under CEQA. Therefore, in certain situations, new shadow could be significant under planning code section 295 but would not be a significant environmental impact under CEQA, and vice versa.

Compliance with section 295 of the planning code occurs independently of this EIR’s analysis and evaluation of shadow impacts. The purpose of the analysis in this EIR is to provide the public and City decision makers with information that sufficiently describes the proposed project’s shadow in terms of the types of parks and open spaces that it would affect, when and where the shadow would occur, what the anticipated duration of the shadow would be, and whether the shadow could substantially and adversely affect the subject parks or open spaces.

APPROACH TO ANALYSIS

Although Appendix G of the CEQA Guidelines does not include checklist questions related to potential shadow impacts, the City adopted standards for evaluation of shadow impacts under section 31.10 of the administrative code. The CEQA analysis for development projects in San Francisco typically relies on the technical methodology developed to demonstrate compliance with planning code section 295 as described in (1) the February 3, 1989, memorandum titled “Proposition K – The Sunlight Ordinance,” and (2) the July 2014 memorandum titled “Shadow Analysis Procedures and Scope Requirements.” The Recreation and Park Commission and the Planning Commission adopted criteria in 1987 and 1989 for the review of shade, solar access, and shadow effects. This analysis uses the Shadow Study prepared by Prevision Design. The following describes the standards for review of shadow under section 295, as applied by Prevision Design.

PROPOSED STREETScape AND STREET NETWORK IMPROVEMENTS

The streetscape and street network improvements would be implemented entirely within existing public rights-of-way and would not involve construction of any buildings or other structures of a height or bulk great enough to result in adverse effects related to shadow. As disclosed in the initial study (see Appendix B), the proposed streetscape and street network improvements were found not to affect shadow conditions in a substantial manner. Because shadow impacts related to streetscape and street network changes would be less than significant, no further analysis is required.

QUANTITATIVE METHODOLOGY

To perform quantitative shadow calculations, Prevision Design generated a 3D virtual massing model of the urban context inclusive of all existing and proposed buildings/sites (detailed further

under Modeling Assumptions below). Within one hour after sunrise through one hour before sunset (hereafter “the daily analysis period”), Prevision Design performed snapshot analyses at 15-minute intervals, repeating this process every seven days between the Summer Solstice (June 21) and Winter Solstice (December 20), with interim times and dates extrapolated to approximate shadow conditions on other days and times. This half-year period (between the Summer and Winter Solstices) is referred to by the department as a “solar year.” Because the path of the sun is mirrored over the second half of the year, analysis of this half-year period allows for reasonable extrapolation to arrive at a full-year estimated shading calculation.¹⁰

In addition to the quantitative analysis of existing shadow conditions and the net new shadow that would be generated by the Hub Plan (including the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street), the analysis includes calculations to capture the combined shadow effects that would be generated by adding reasonably foreseeable future projects that would cast shadow on the same public open spaces affected by shadow from the Hub Plan (including the two individual development projects). These calculations are referred to as the “Cumulative Scenario.”¹¹ Consistent with established City methodology, for parks under the jurisdiction of RPD, quantitative shadow calculations have been calculated; the general timing of net new shadow effects for other non-RPD parks and open spaces is listed.

GRAPHICAL METHODOLOGY

To provide a spatial and contextual understanding of the location, size, and features affected by net new shadow, Prevision Design has prepared shadow graphics to accompany the quantitative analysis. The complete set of figures produced by the computer modeling is included in Appendix H-1.

- **Department Shadow Fan.** The shadow fan is a tool that plots the maximum potential reach of project shadow over the course of a year (from one hour after sunrise until one hour before sunset) relative to the location of nearby open spaces, recreation facilities, and publicly accessible parks. The shadow fan accounts for topographical variation but does not account for existing shadows cast by existing buildings. The shadow fan is used by the department as the basis for initially identifying which open spaces, recreation facilities, and parks merit

¹⁰ The annual percentages of existing shadow listed in this EIR may vary from those reported in past shadow analyses prepared for prior projects. The department updated technical direction regarding solar angles in 2016 and revised and re-issued geographic boundaries of many parks in 2017, both of which altered the calculated existing shadow loads of many parks. In addition, due to the large number of data samples, rounding, extrapolation, and unavoidable minor variations that occur in the software simulation process, even under identical model conditions minor discrepancies (typically under 0.05 percent) in calculated values may occur.

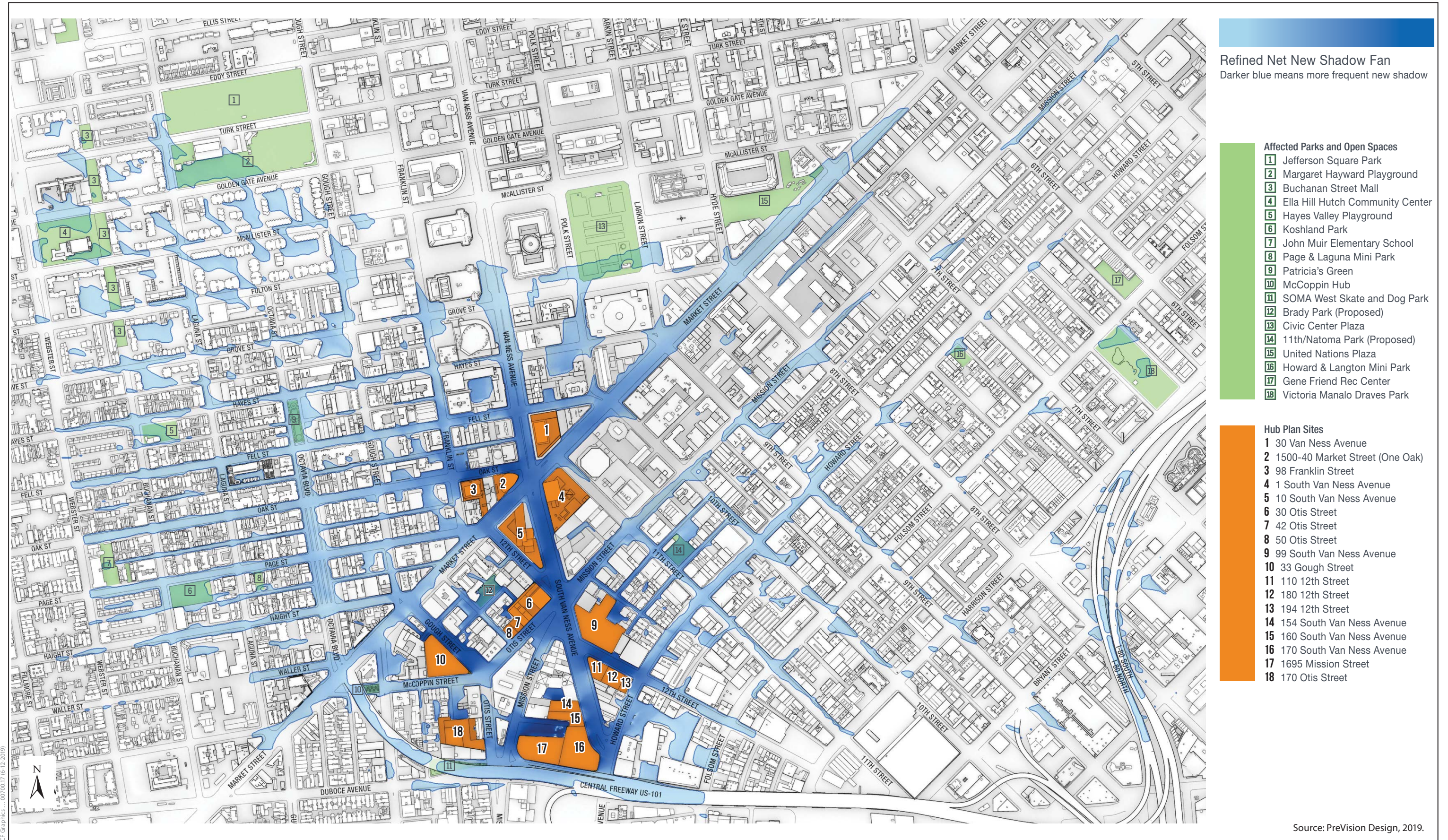
¹¹ This includes the assumption that the 10 South Van Ness Avenue Project would be constructed as a 590-foot single tower. For informational purposes, the 400-foot-tall, double tower project variant is analyzed under Cumulative Scenario 2 in the Shadow Study (Appendix H-1).

further study. Those that are outside the maximum potential reach of project shadow do not require further study.

- **Net New Shadow Fans.** Graphics showing the full extent of the areas receiving net new shadow at any point throughout the year, factoring out the presence of shadow cast by existing buildings. Three shadow fans (**Figures 3.F-2 through 3.F-4**, pp. 3.F-19 to 3.F-21) have been prepared as part of this analysis, depicting the Hub Plan Scenario, the 30 Van Ness Avenue Project, and the 98 Franklin Street Project.
- **Sweep Shadow Diagrams.** Appendix H-1 includes graphics showing “snapshot” shading conditions at hourly intervals over the entire affected area for the Hub Plan, 30 Van Ness Avenue, and the 98 Franklin Street scenarios. Graphics reflect shadow conditions within the daily analysis period on the Summer Solstice (June 21), the approximate equinoxes (March 22/September 20), and the Winter Solstice (December 20). Select Sweep Shadow Diagrams are included in **Figures 3.F-5 through 3.F-22**, pp. 3.F-22 to 3.F-39 (with the rest included in Appendix H-1).¹² These figures depict shadow from likely development under the Hub Plan and the Cumulative Scenario¹³ for representative times of the day (9 a.m., 12 p.m., and 3 p.m.) during the four seasons. Shadows on any other day of the year would generally be within the range of shadows presented in these figures. Sweep Shadow Diagrams are also included in this section for the 30 Van Ness Avenue Project and the 98 Franklin Street Project, but only for the seasons and times when nearby parks would be affected by net new shadow from those individual development projects.
- **Detailed Shadow Diagrams.** For parks and open spaces subject to section 295, graphics are provided in Appendix H-1 showing “snapshot” shading conditions at hourly intervals within the daily analysis period on the Summer Solstice (June 21), the approximate equinoxes (March 22/September 20), and the Winter Solstice (December 20) and the date with the greatest quantitative net new shadow (if different from above). At times when the project is casting net new shadow on an open space, additional graphics are provided at 15-minute intervals. As discussed above, and consistent with standards

¹² Note that the shadow fan diagrams shown in this document reflect shadow cast by 30 Van Ness Avenue as proposed in September 2018. Because the shadow fans have not been altered to reflect this change, the figures present a more conservative scenario with respect to the shadow effects of the 30 Van Ness Avenue Project.

¹³ The Cumulative Scenario is depicted in each Hub Plan figure.



Source: PreVision Design, 2019.

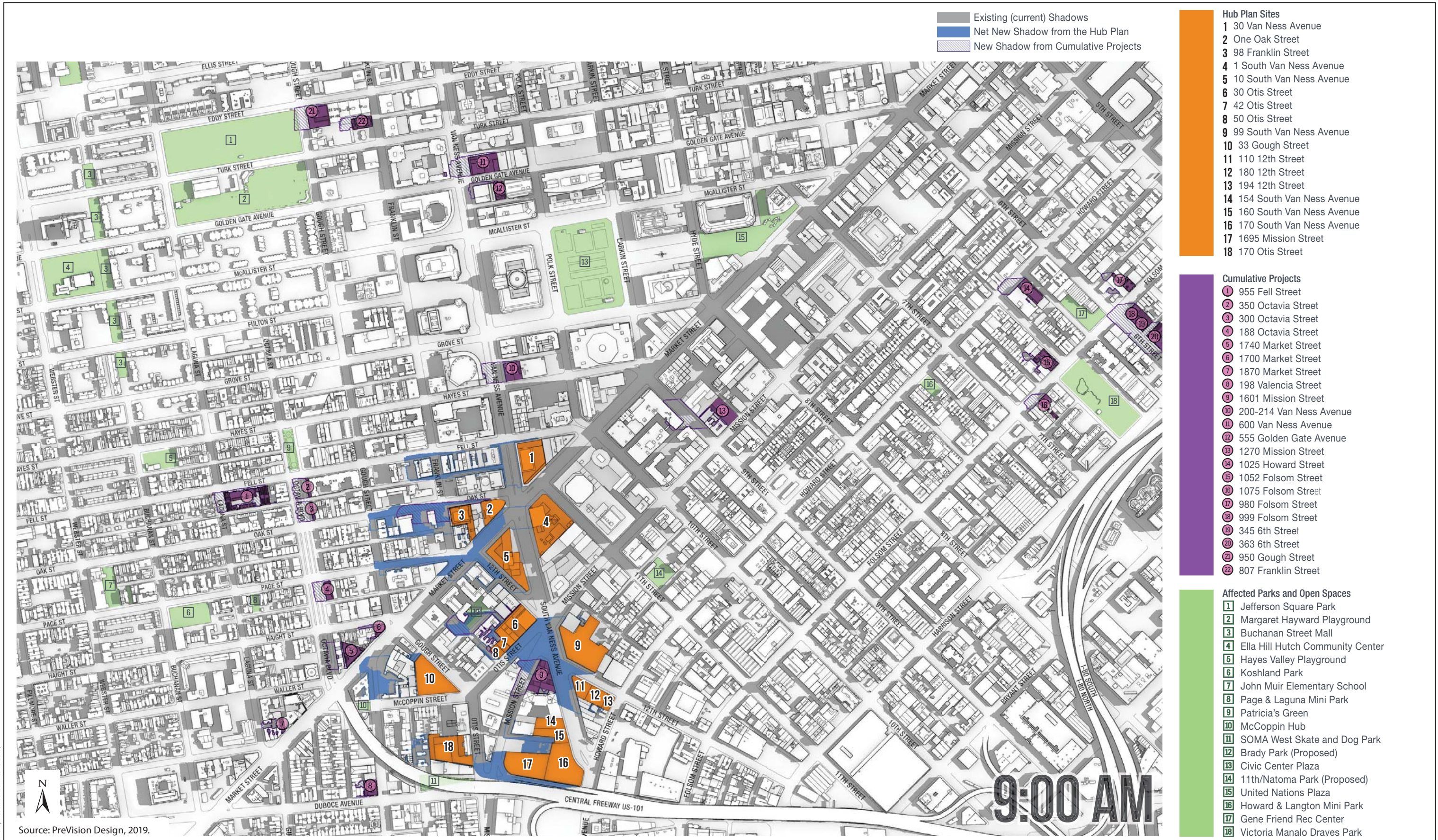
Figure 3.F-2
Aggregate Shadow Fan—Hub Plan





Source: PreVision Design, 2019.

Figure 3.F-4
Aggregate Shadow Fan—98 Franklin Street Project



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

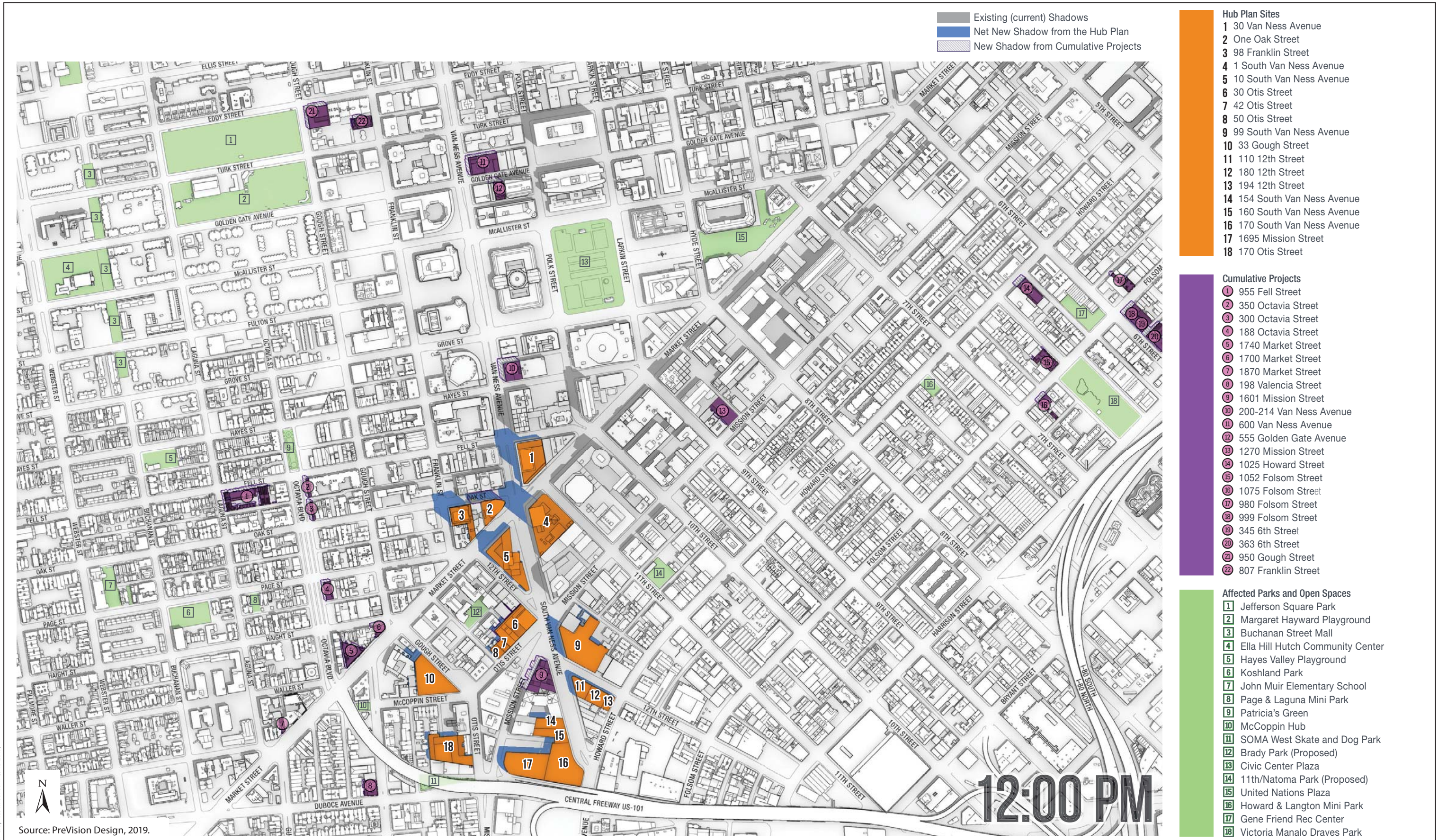
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

9:00 AM

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-5
 Hub Plan—Shadow Diagram on Summer Solstice (June 21) at 9 AM



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

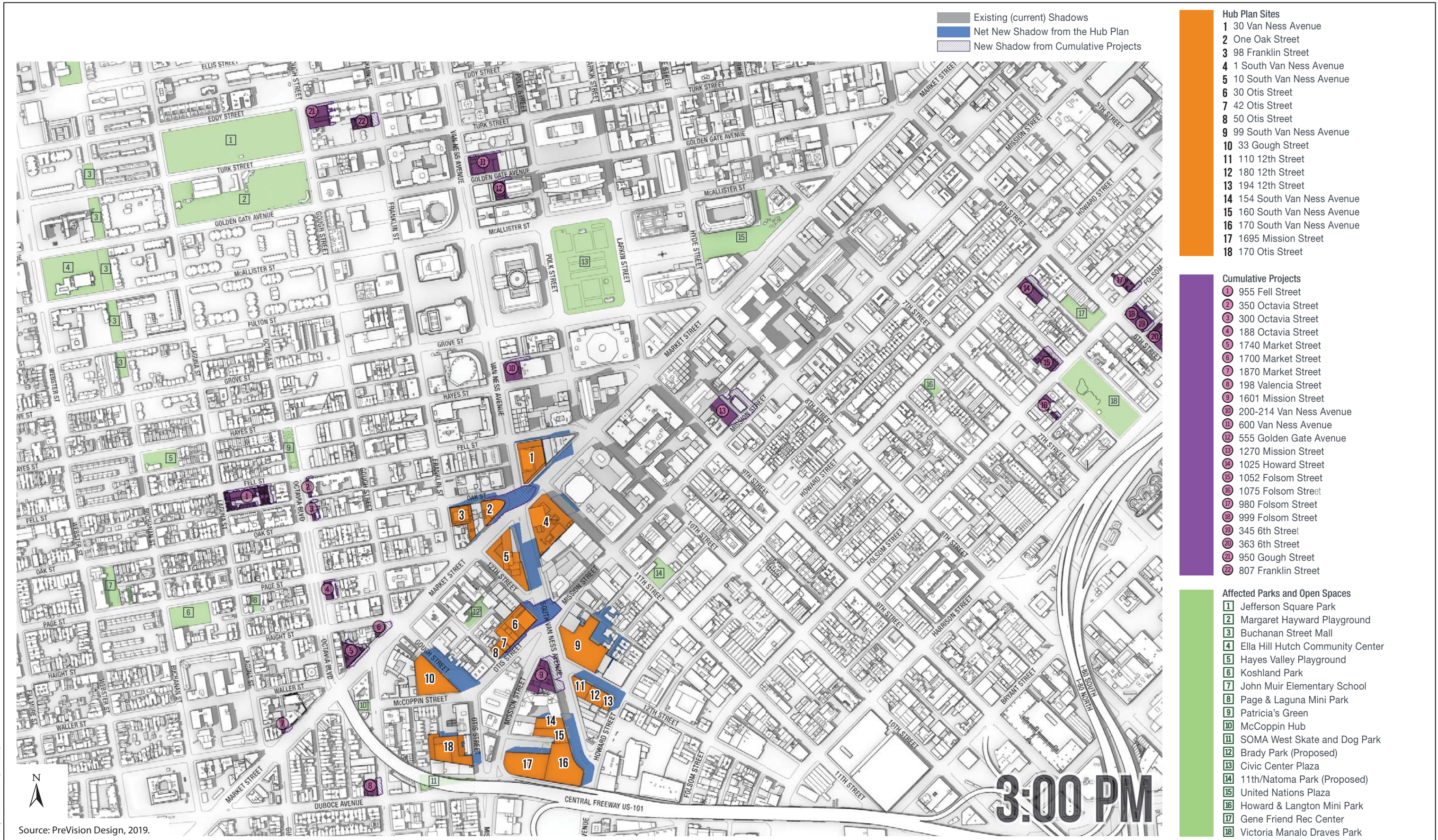
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

12:00 PM

Source: PreVision Design, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-6
 Hub Plan—Shadow Diagram on Summer Solstice (June 21) at Noon



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

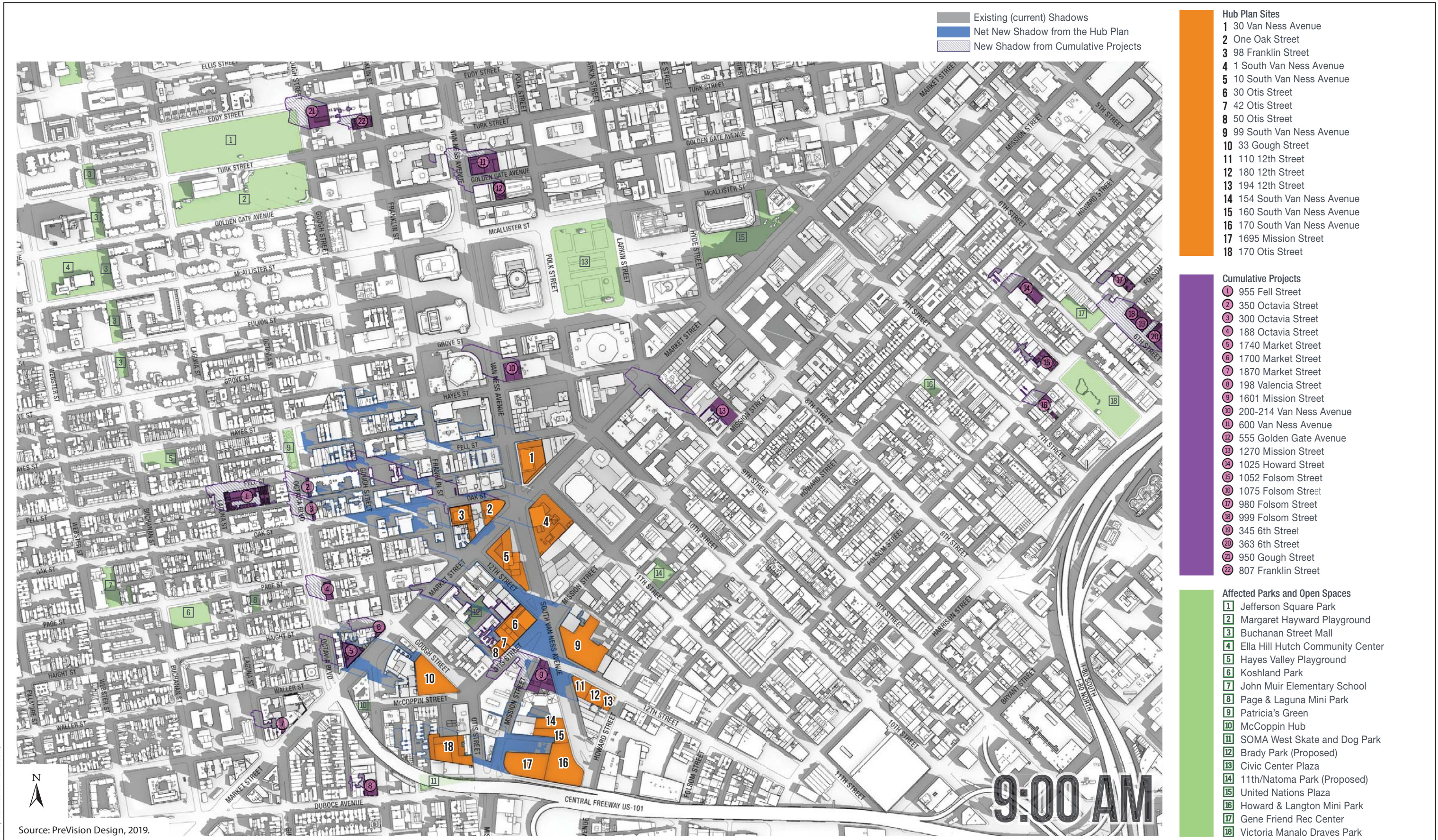
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

3:00 PM

Source: PreVision Design, 2019.

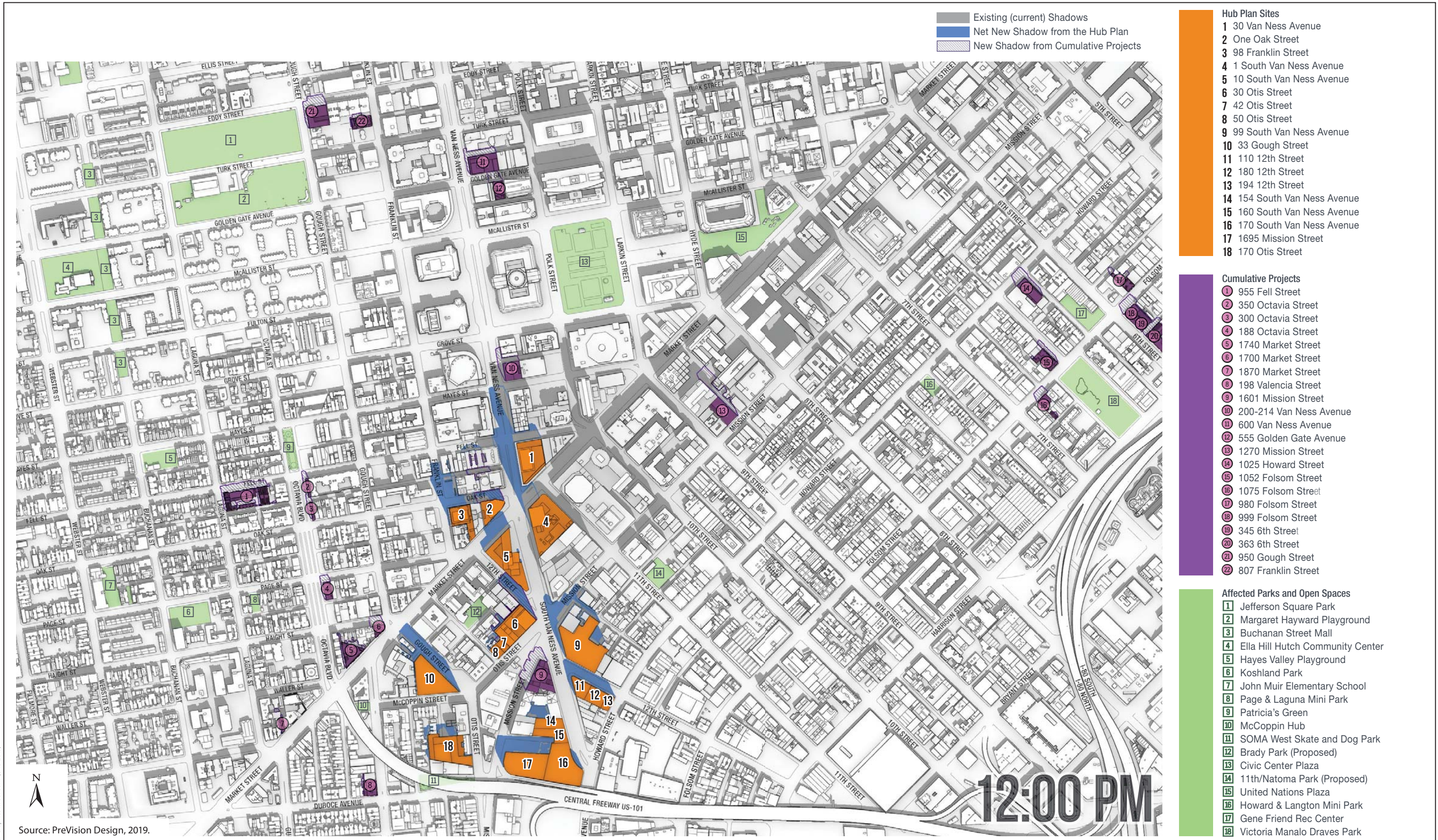
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-7
 Hub Plan—Shadow Diagram on Summer Solstice (June 21) at 3 PM



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-8
 Hub Plan—Shadow Diagram on Fall/Spring Equinoxes (September 20/March 22) at 9 AM



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

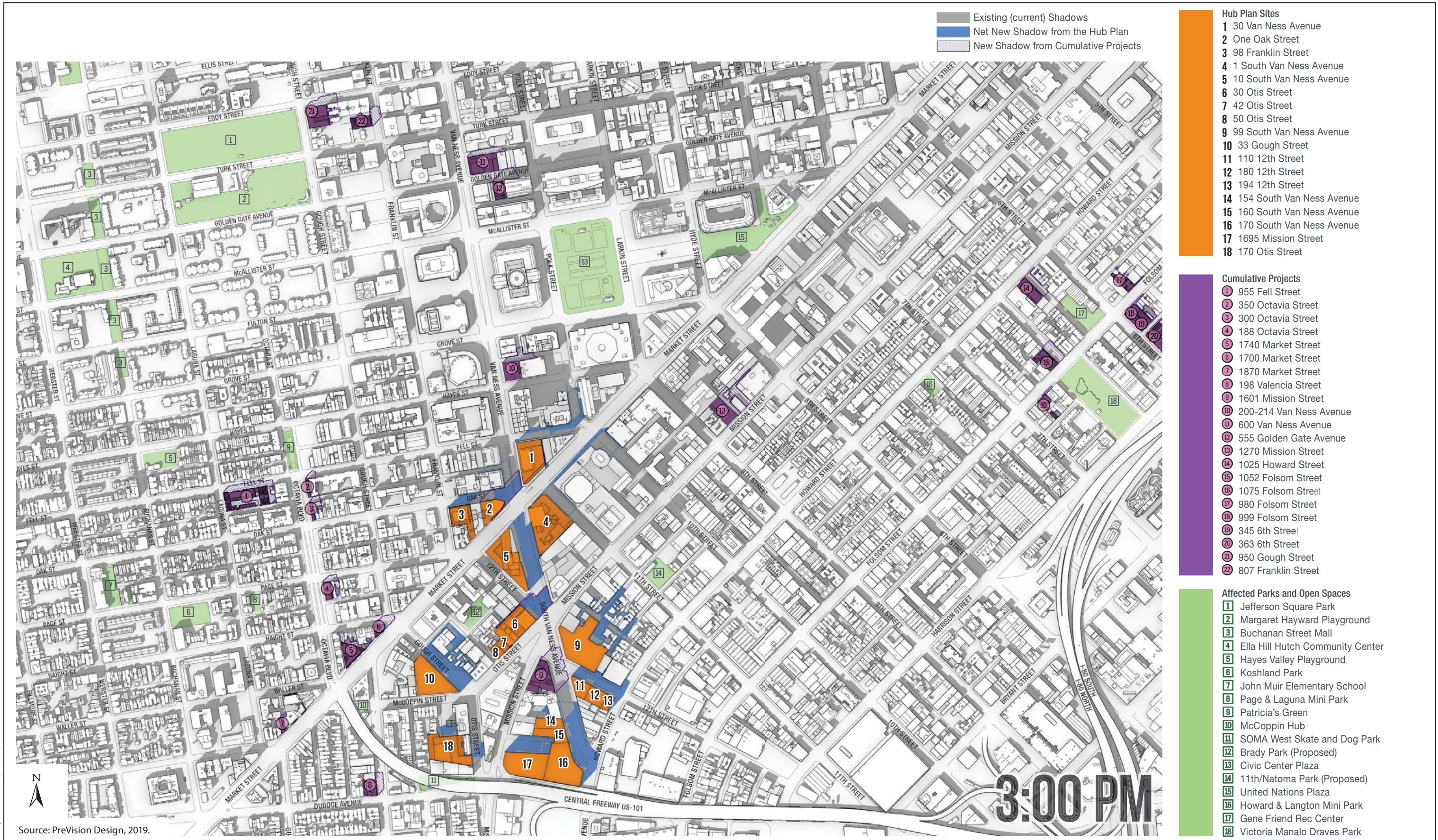
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

12:00 PM

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-9
 Hub Plan—Shadow Diagram on Fall/Spring Equinoxes (September 20/March 22) at Noon



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

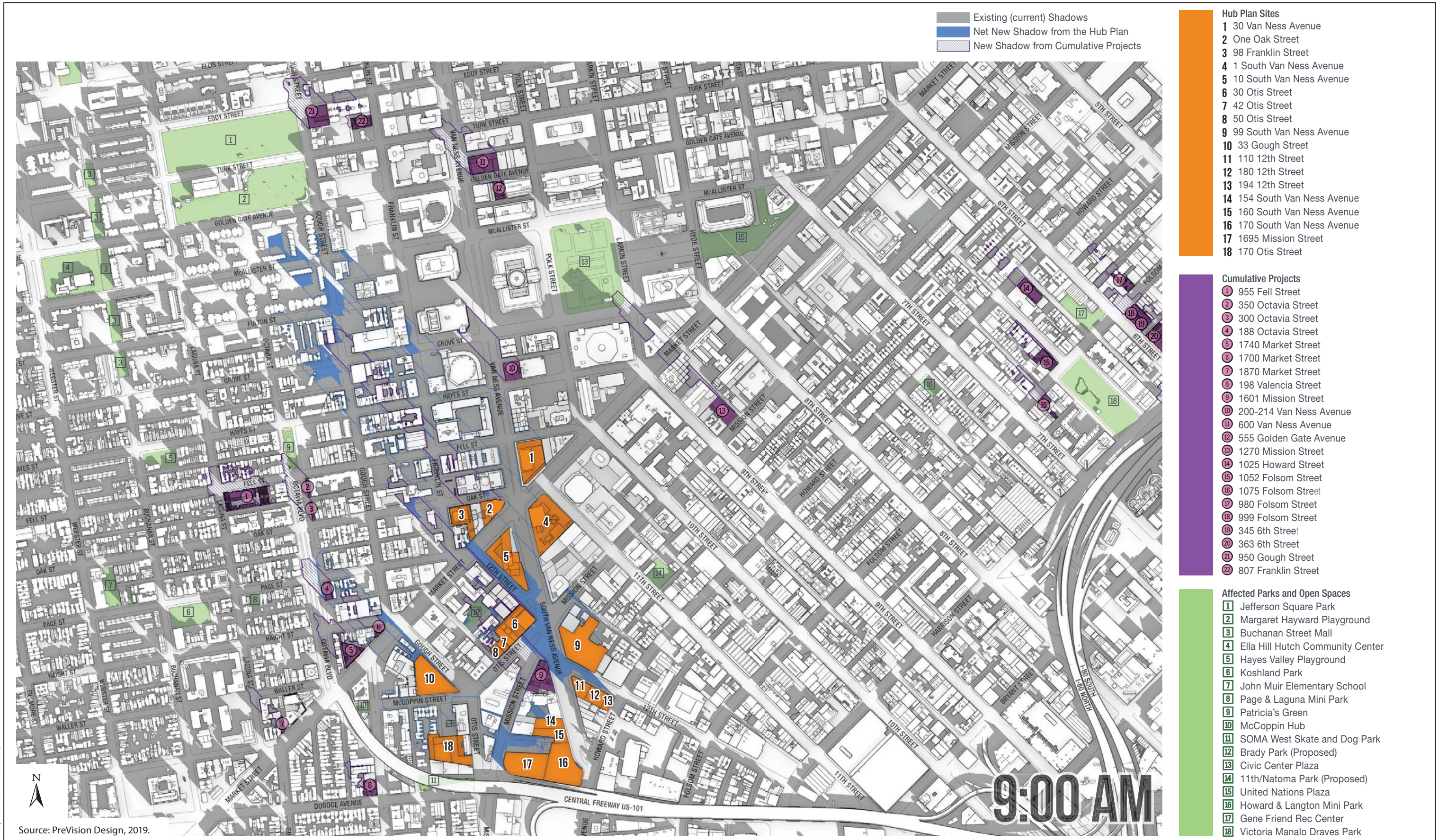
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

3:00 PM

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-10
 Hub Plan—Shadow Diagram on Fall/Spring Equinoxes (September 20/March 22) at 3 PM



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

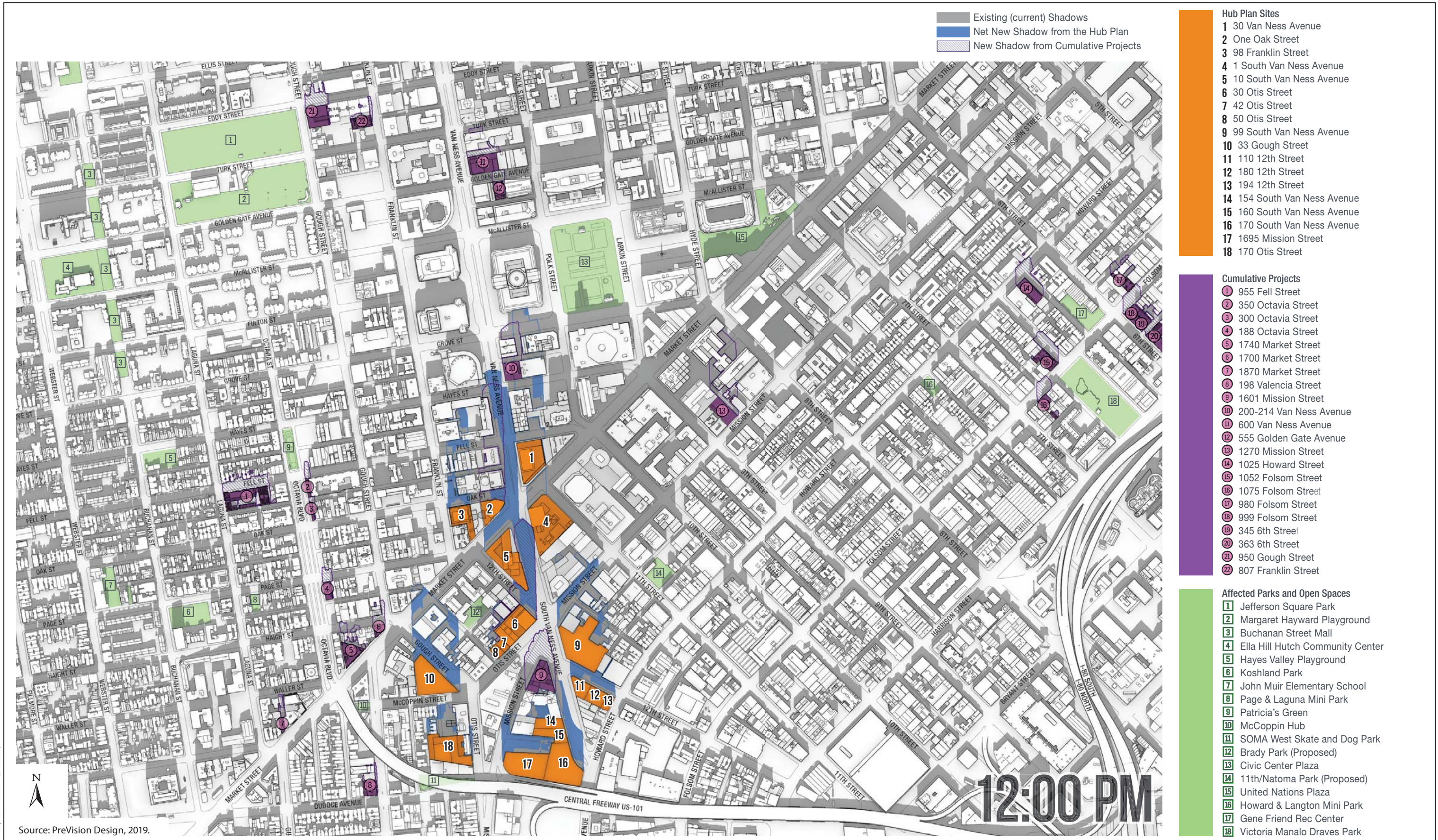
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

9:00 AM

Source: PreVision Design, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-11
 Hub Plan—Shadow Diagram on Winter Solstice (December 20) at 9 AM



Existing (current) Shadows
 Net New Shadow from the Hub Plan
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

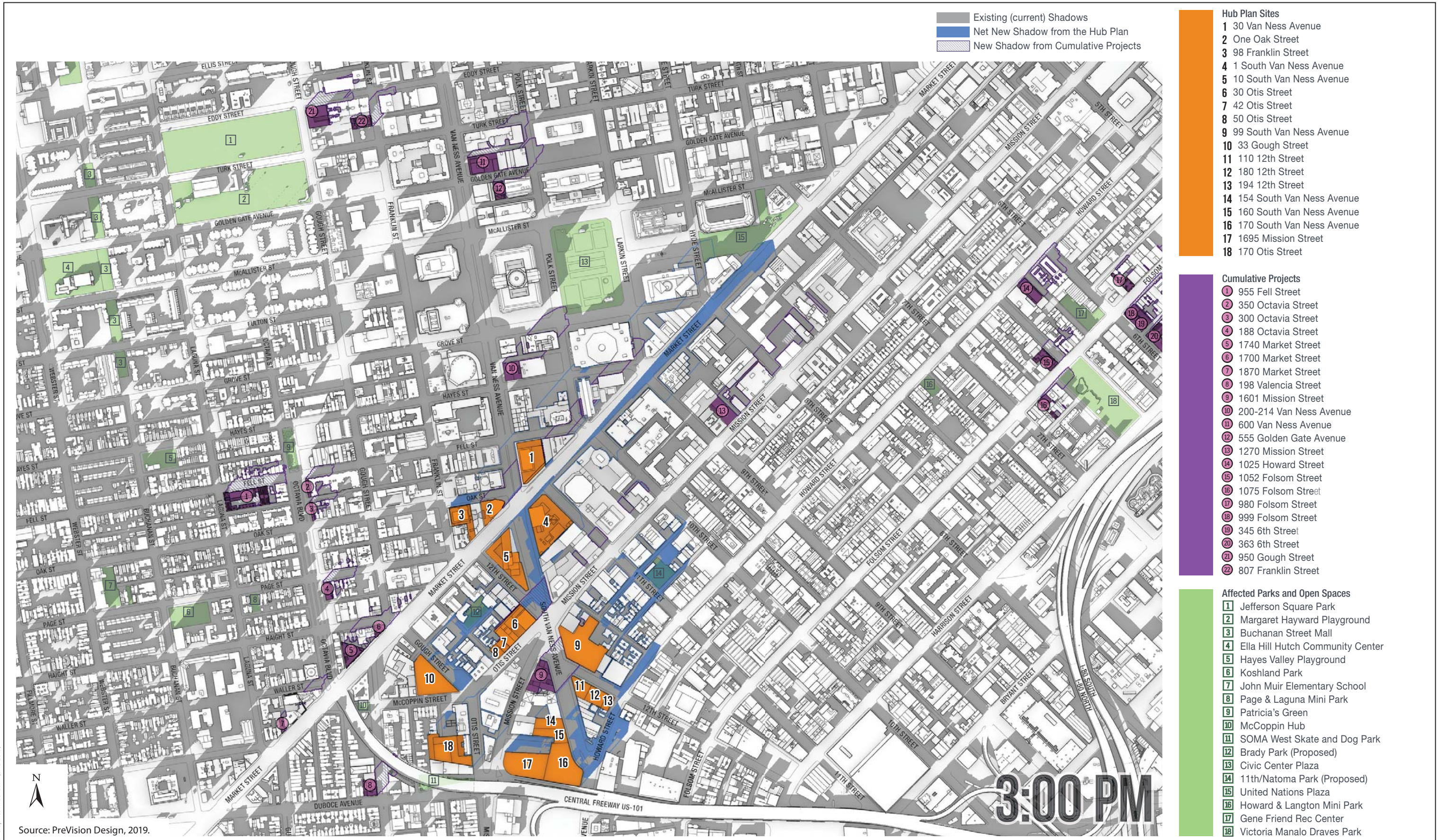
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

12:00 PM

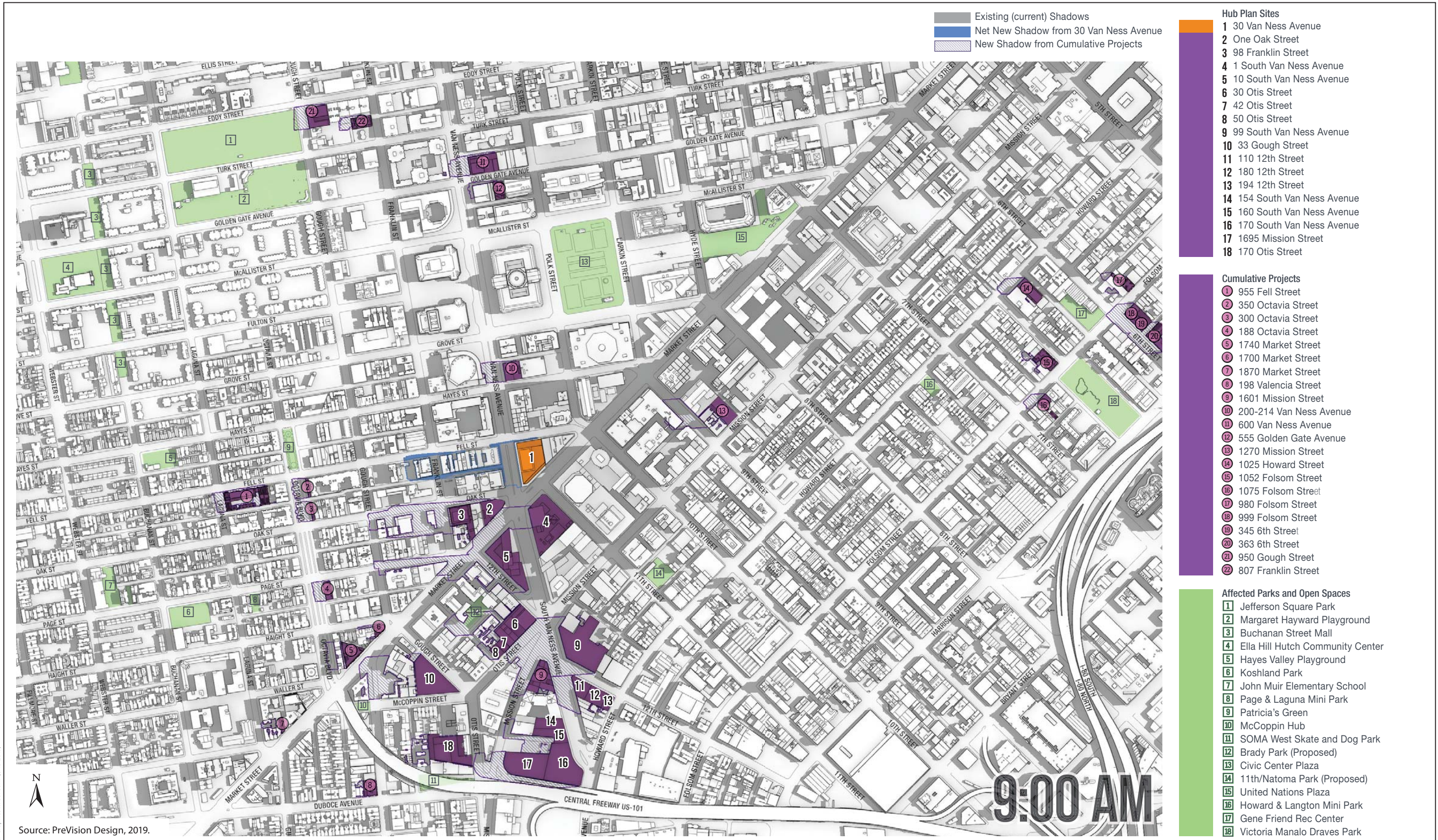
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-12
 Hub Plan—Shadow Diagram on Winter Solstice (December 20) at Noon



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-13
 Hub Plan—Shadow Diagram on Winter Solstice (December 20) at 3 PM



Existing (current) Shadows
 Net New Shadow from 30 Van Ness Avenue
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

9:00 AM

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-14
 30 Van Ness Avenue Project—Shadow Diagram on Summer Solstice (June 21) at 9 AM

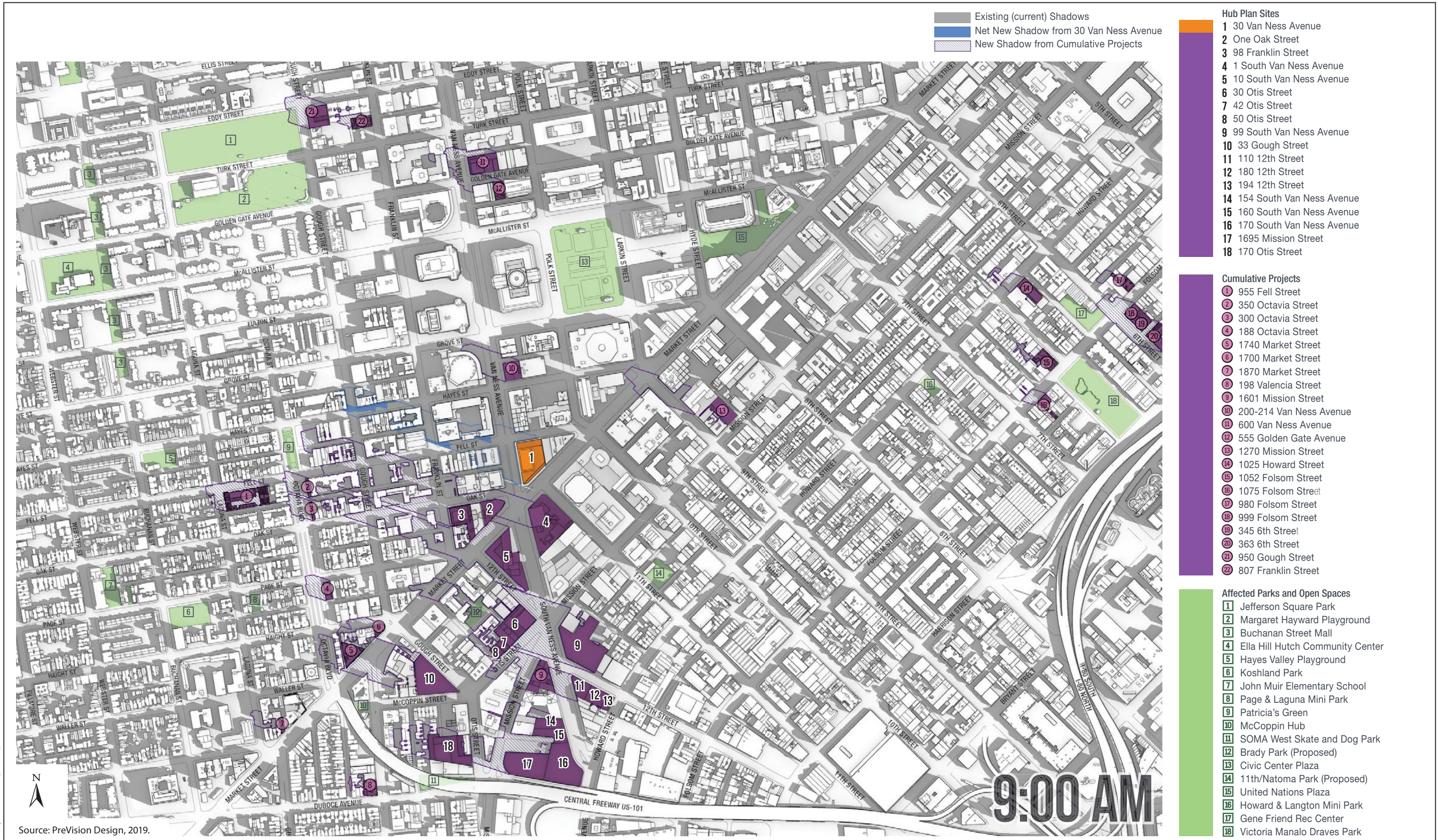
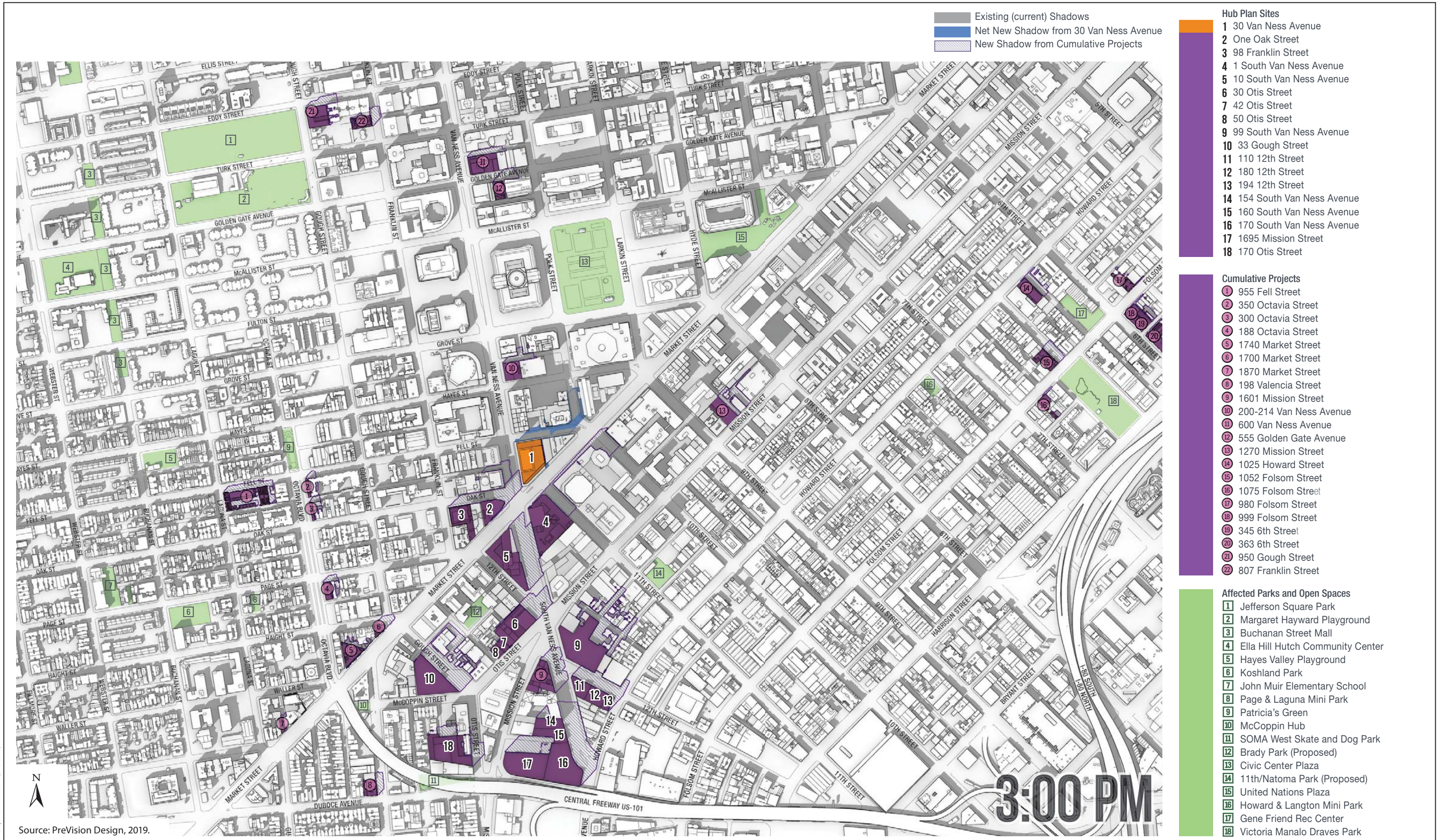


Figure 3.F-15
 30 Van Ness Avenue Project—Shadow Diagram on Fall/Spring Equinoxes (September 20/March 22) at 9 AM

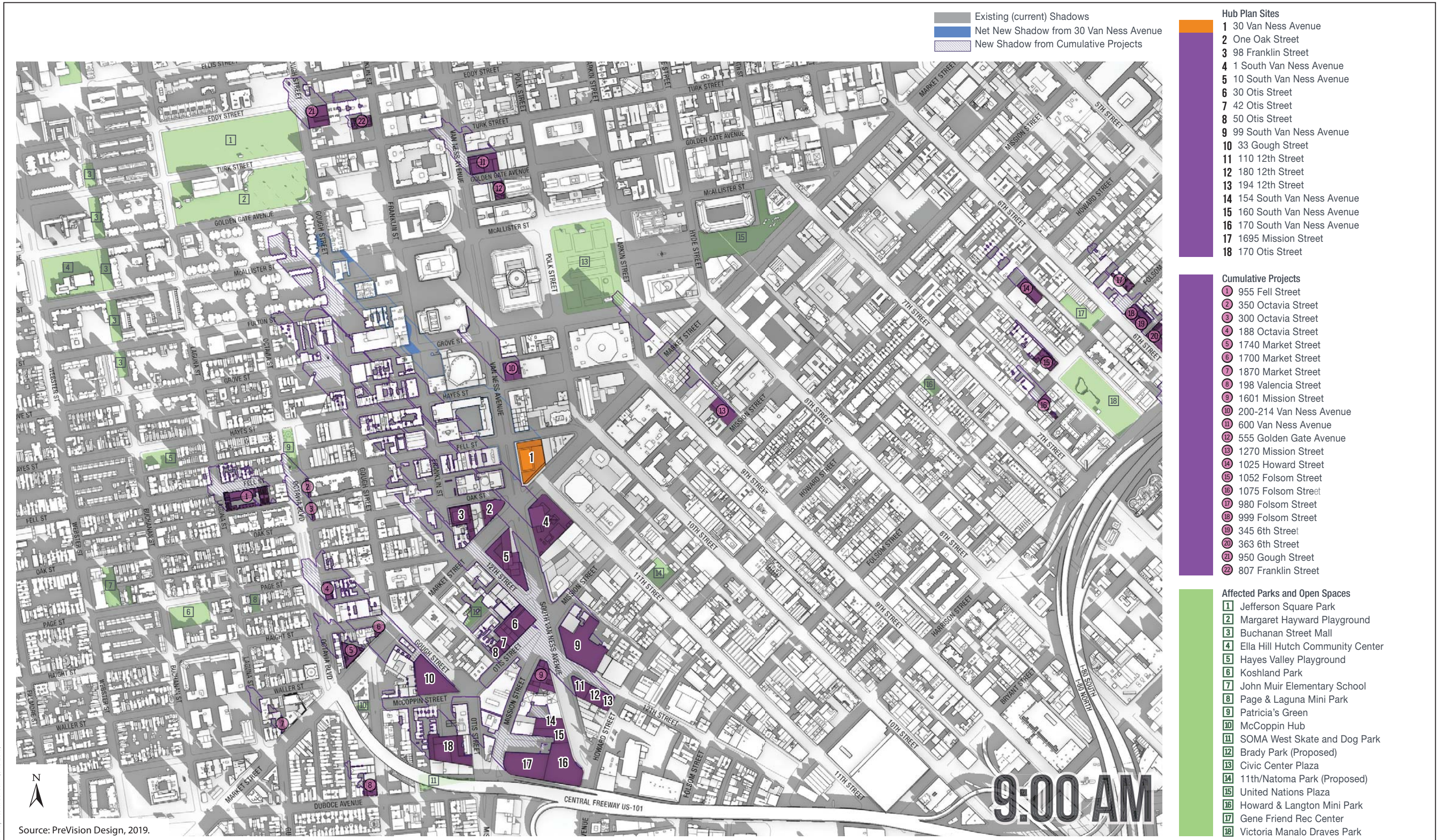


ICF Graphics... 0070017 (6-13-2019)

Source: PreVision Design, 2019.

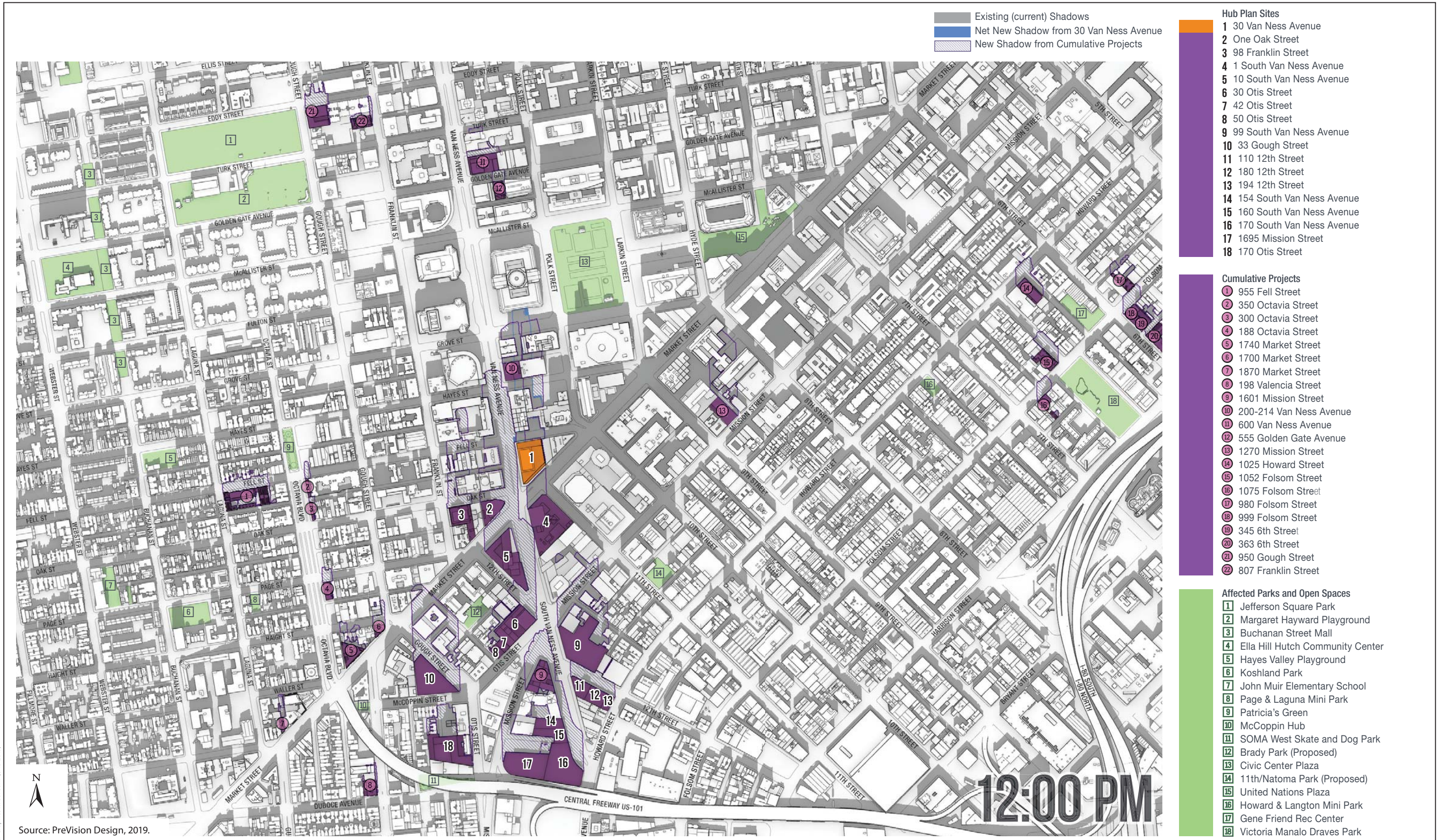
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-16
30 Van Ness Avenue Project—Shadow Diagram on Fall/Spring Equinoxes (September 20/March 22) at 3 PM



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-17
30 Van Ness Avenue Project—Shadow Diagram on Winter Solstice (December 20) at 9 AM



Existing (current) Shadows
 Net New Shadow from 30 Van Ness Avenue
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

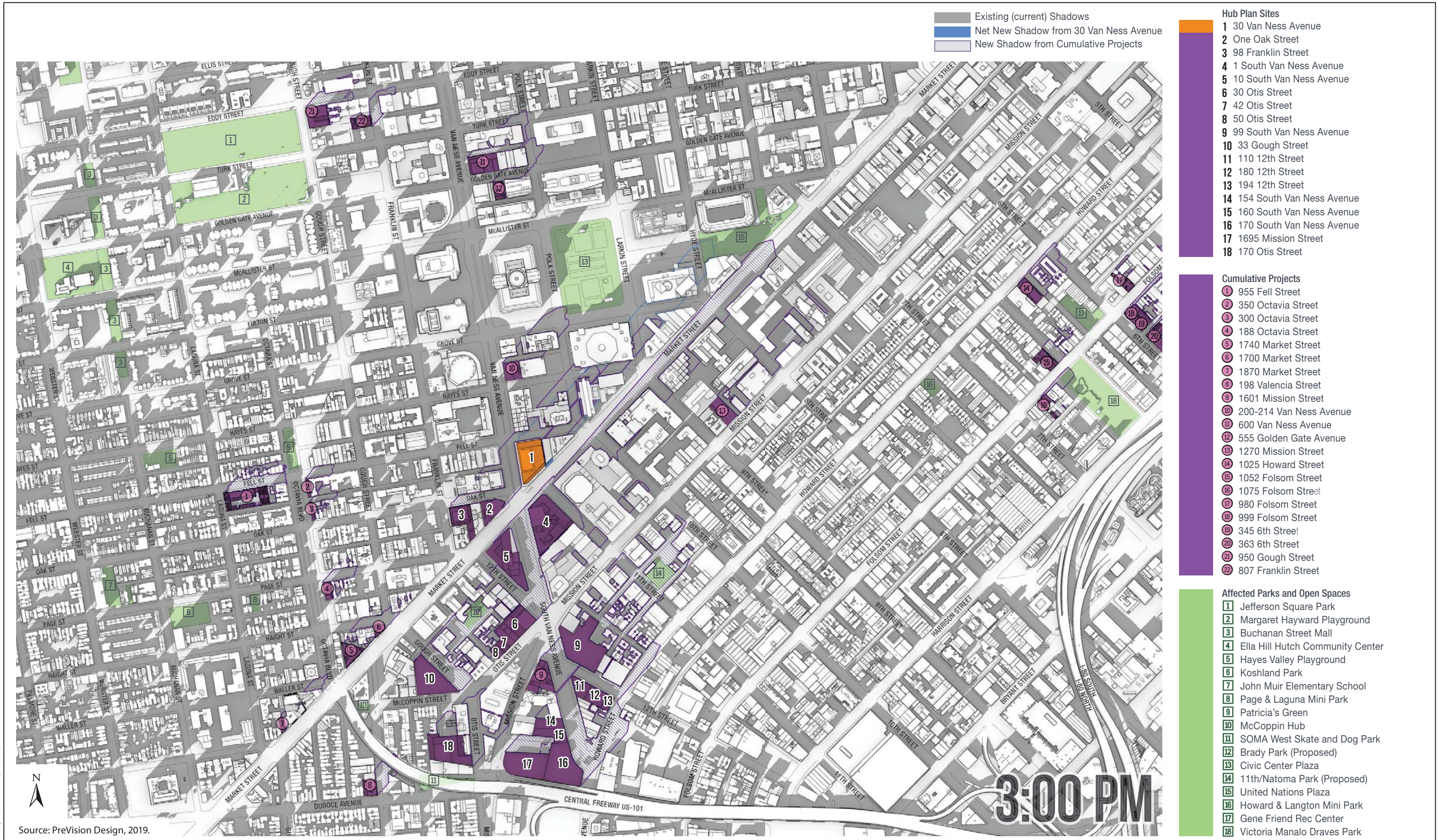
- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

12:00 PM

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-18
 30 Van Ness Avenue Project—Shadow Diagram on Winter Solstice (December 20) at Noon



Existing (current) Shadows
 Net New Shadow from 30 Van Ness Avenue
 New Shadow from Cumulative Projects

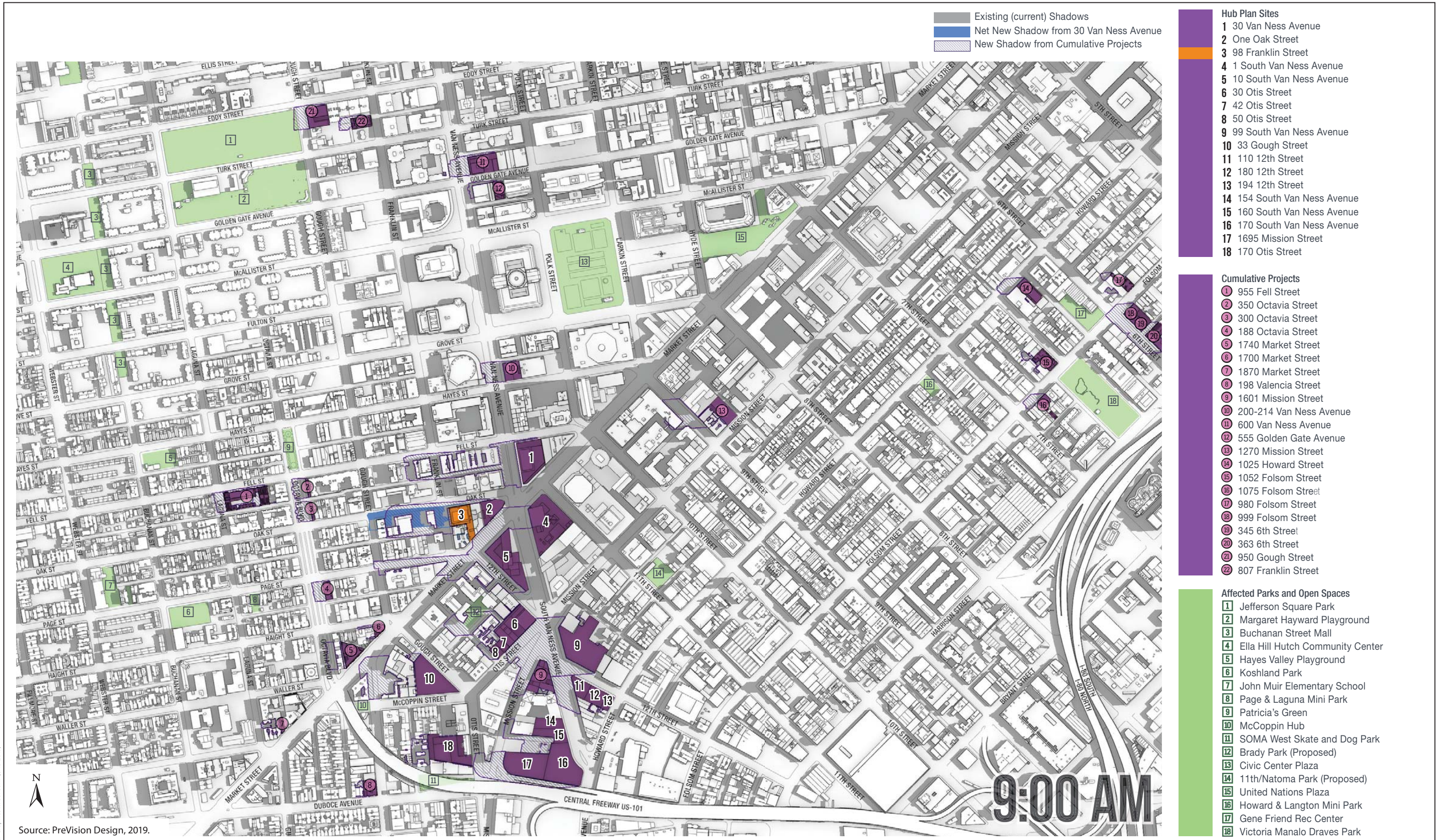
- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

Figure 3.F-19
30 Van Ness Avenue Project—Shadow Diagram on Winter Solstice (December 20) at 3 PM



ICF Graphics... 0070017 (6-13-2019)

Source: PreVision Design, 2019.

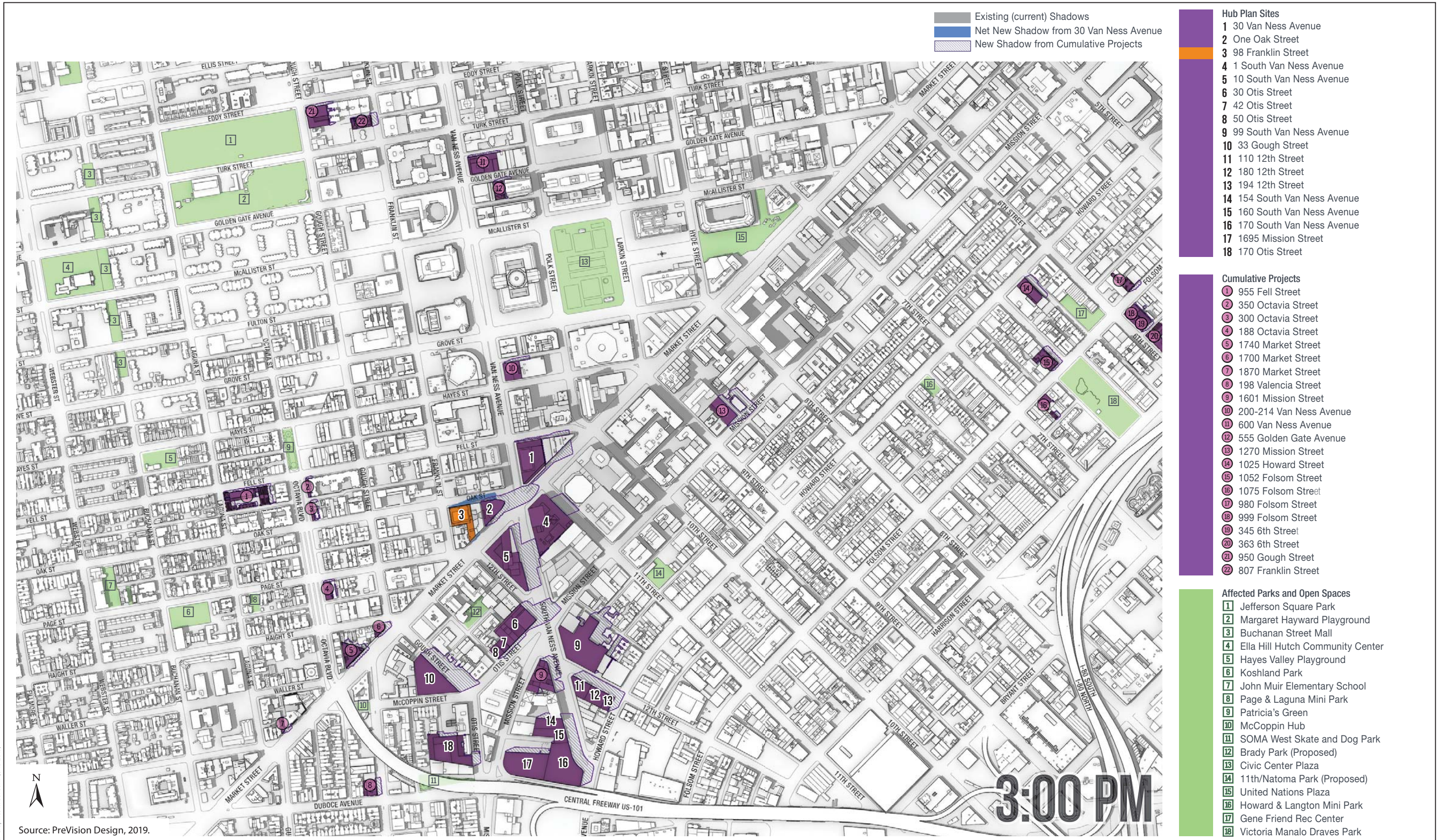
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.F-20
98 Franklin Street Project—Shadow Diagram on Summer Solstice (June 21) at 9 AM

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park



Existing (current) Shadows
 Net New Shadow from 30 Van Ness Avenue
 New Shadow from Cumulative Projects

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 One Oak Street
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

- Cumulative Projects**
- 1 955 Fell Street
 - 2 350 Octavia Street
 - 3 300 Octavia Street
 - 4 188 Octavia Street
 - 5 1740 Market Street
 - 6 1700 Market Street
 - 7 1870 Market Street
 - 8 198 Valencia Street
 - 9 1601 Mission Street
 - 10 200-214 Van Ness Avenue
 - 11 600 Van Ness Avenue
 - 12 555 Golden Gate Avenue
 - 13 1270 Mission Street
 - 14 1025 Howard Street
 - 15 1052 Folsom Street
 - 16 1075 Folsom Street
 - 17 980 Folsom Street
 - 18 999 Folsom Street
 - 19 345 6th Street
 - 20 363 6th Street
 - 21 950 Gough Street
 - 22 807 Franklin Street

- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

Source: PreVision Design, 2019.

3:00 PM

Figure 3.F-21
98 Franklin Street Project—Shadow Diagram on Summer Solstice (June 21) at 3 PM

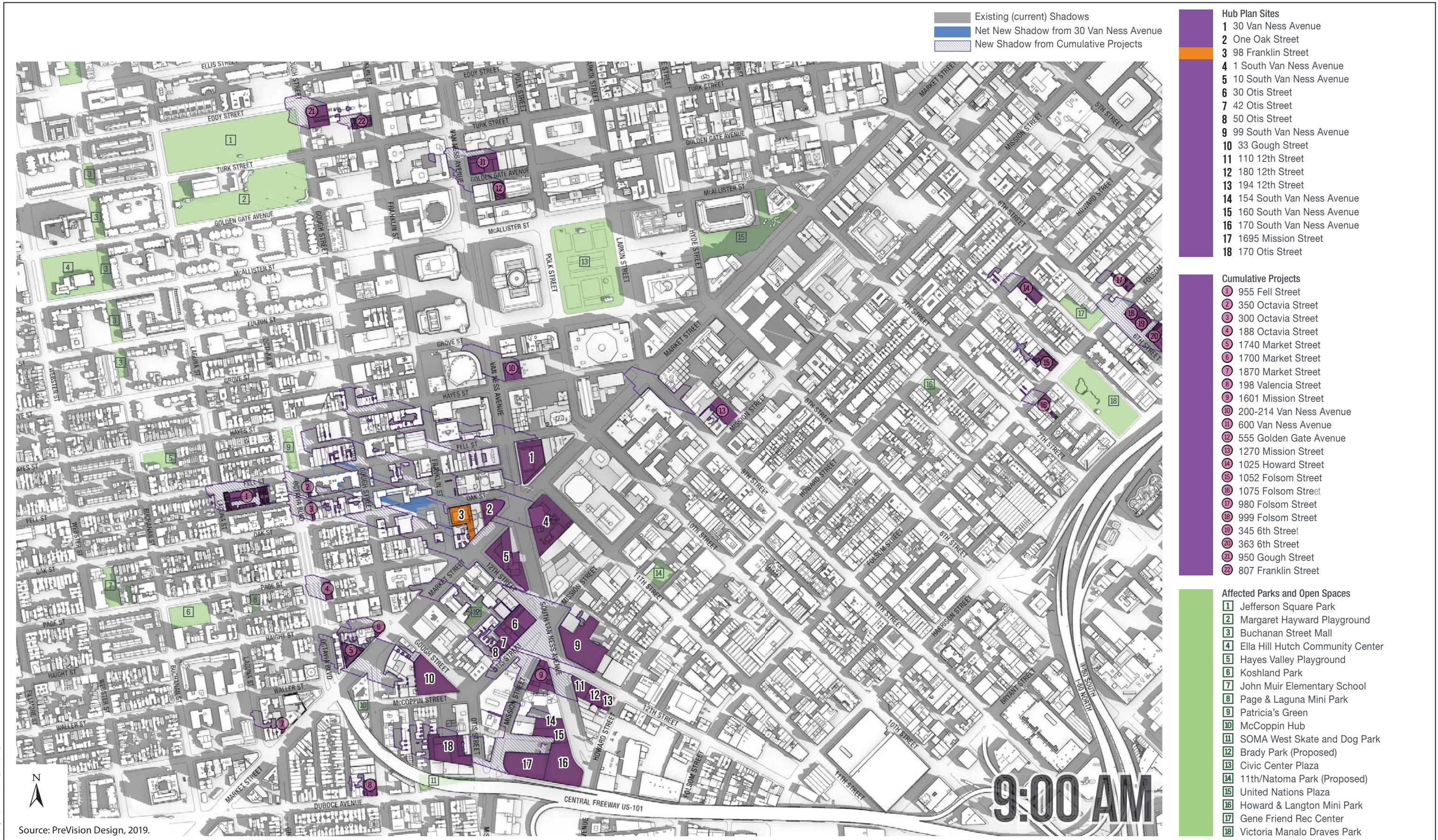


Figure 3.F-22
 98 Franklin Street Project—Shadow Diagram on Fall/Spring Equinoxes (September 20/March 22) at 9 AM

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established by the City, detailed shadow diagrams are only included for the RPD parks that would result in significant and unavoidable shadow impacts. Since significant and unavoidable shadow impacts would not occur on any RPD parks, all detailed shadow diagrams are only included in Appendix H-1.¹⁴

QUALITATIVE METHODOLOGY

To gain a better understanding of how net new shadow may or may not affect existing patterns of use in the affected open spaces that are subject to section 295, Prevision Design¹⁵ conducted six 30-minute site visits to each open space to observe the nature and intensity of uses. Two site visits were performed in the morning, two at midday, and two late in the day, with one visit from each pair on a weekday and one on a weekend. The qualitative effects of net new shadow on the affected open spaces are discussed based on the size, timing, and duration of net new shadow and how such shadow might affect observed existing patterns of use.

MODELING ASSUMPTIONS

Existing Conditions Model. Prevision Design's existing conditions model reflects an accurate 3D representation of the affected area generated by Light Intensity Distance and Ranging [or Laser Imaging Detection and Ranging] (LIDAR) modeling of both the terrain of San Francisco and all existing buildings.¹⁶ Locations, boundaries, and sizes of the affected open spaces are based on geographic information system (GIS) data provided by the department and/or RPD. Existing conditions are discussed under each park in the Environmental Setting section, above.

The Hub Plan Model. Building forms used for the 18 Hub Plan sites (i.e., the 18 sites where the Hub Plan would change building height limits) have been determined based on the level of

¹⁴ Note that the detailed shadow diagrams for Civic Center Plaza, as included in Appendix H-1, depict the design change for the 30 Van Ness Avenue Project, as submitted in April 2019. This change reduced the net height of the building and modified its form, resulting in substantially reduced net new shadow cast on Civic Center Plaza, along with equal or lesser shading on other parks and open spaces. Although the change in shadow effects on Civic Center Plaza with the revised 30 Van Ness Avenue Project proposal is depicted in Appendix H-1 and reflected in the analysis, it is not depicted in the shadow figures in this section.

¹⁵ In consultation with the department, use observation reporting for some parks and open spaces from prior shadow studies performed by Prevision Design has been re-used in cases where the nature of use has been substantially unchanged since the time when the use observation visits were performed. However, for purposes of this analysis, the use observations are summarized; refer to Appendix H-1 for full descriptions of use observations.

¹⁶ Recent buildings (built after 2010) and buildings currently under construction have been modeled and added by Prevision Design, based on design drawings of the projects and/or 3D models provided by their project sponsors.

information known about potential developments. The approach has been divided into three groups:

- *Group A:* Projects identified for upzoning and seeking individual project-level environmental clearance through this EIR (two sites): 30 Van Ness Avenue and 98 Franklin Street. For the two individual projects seeking project-level environmental clearance through this EIR, the buildings have been modeled based on the current plans on file for those projects. The 98 Franklin Street analysis is based on plans dated September 6, 2018, and the 30 Van Ness Avenue analysis is based on plans dated September 13, 2018. However, since the September 2018 plans, the 30 Van Ness Avenue Project has been redesigned to reduce shadow impacts on Civic Center Plaza. Therefore, the analysis of impacts on Civic Center Plaza (in Impact SH-2, below) has been updated with the revised plans.¹⁷ However, the analysis of other affected open spaces represents a version of the 30 Van Ness Avenue Project that is larger in mass and bulk than the version described in the shadow analysis for Civic Center Plaza. As the mass of the revised 30 Van Ness Avenue Project has been reduced since the September 2018 plans, shadow effects of the revised project would be equal to or lesser than the shadow as described in the analysis of the sections of the other parks/open spaces. In addition, the shadow fan diagrams shown in this document reflect shadow cast by 30 Van Ness Avenue, as proposed in September 2018. Because the shadow fan has not been altered to reflect this change, the figures present a more conservative scenario with respect to the shadow effects of the 30 Van Ness Avenue Project.
- *Group B:* Projects that have their own completed or currently in-process environmental review but would not maximize the upzoned height allotment proposed under the Hub Plan (four sites): 1500-1540 Market Street (One Oak), 42 Otis Street, 10 South Van Ness Avenue, and 30 Otis Street. The One Oak and 42 Otis Street projects have completed environmental review but have not begun construction; the 10 South Van Ness Avenue Project is currently undergoing environmental review; and the 30 Otis Street Project has completed environmental review and is currently under construction. Completion of environmental review indicates that the project is reasonably foreseeable but not guaranteed. Furthermore, the possibility exists that the developers of these projects may allow entitlements to expire and develop a project that uses the full upzoned heights identified in this EIR. To capture the possibility of future height increases, the analysis massing for the Hub Plan Scenario is based on the proposed project designs, but with

¹⁷ Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in shadow effects of the revised 30 Van Ness Avenue Project on Civic Center Plaza relative to the prior version of the 30 Van Ness Avenue Project analyzed in the Shadow analysis report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD) EIR (February 11, 2019)." June 5, 2019.

the maximum height extended to the full Hub Plan height plus a 20-foot-tall mechanical penthouse allowance. The exception to this approach is the project proposal for 10 South Van Ness Avenue, where the project sponsor has already submitted a 590-foot-tall design variant that reflects increased heights allowed under the Hub Plan. For this Hub Plan project, the analysis uses the design variant rather than altering the 400-foot-tall double-tower design proposal. The scenarios and heights modeled for the Shadow Study represent a more conservative scenario; if shorter heights are ultimately selected and constructed for the three projects not yet under construction, the results of the Shadow Study would not worsen.

- Group C*: Projects identified for upzoning that have not filed a development application (11 sites): 1 South Van Ness Avenue, 50 Otis Street, 99 South Van Ness Avenue, 110 12th Street, 180 12th Street, 194 12th Street, 154 South Van Ness Avenue, 160 South Van Ness Avenue, 170 South Van Ness Avenue, 1695 Mission Street, 33 Gough Street, and 170 Otis Street. For all sites listed under Group C, except 1 South Van Ness Avenue, the analysis uses the full site boundary extended to the maximum proposed height plus a 20-foot-tall mechanical parapet allowance. For 1 South Van Ness Avenue, considering adjacent approximately 415- and 260-foot developments and San Francisco planning code requirements for tower separation, it would be unreasonable to assume that a project with a maximum bulk will be constructed to a full height of 650 feet. Therefore, the department has provided massing design for use in this analysis to reflect a more likely massing of a future project at 1 South Van Ness Avenue, assuming the maximum height of 650 feet allowed by the proposed Hub Plan but with massing and tower articulation (setbacks at certain heights) to be more consistent with San Francisco planning code.

Cumulative Conditions Scenario. The Cumulative Scenario uses the same assumptions for the Hub Plan as outlined above in the “Hub Plan Model.”¹⁸ In addition to the Hub Plan sites (including the 30 Van Ness Avenue Project and the 98 Franklin Street Project), other reasonably foreseeable projects that would cast shadow on publicly accessible open spaces affected by the Hub Plan have been included to analyze the total cumulative net new shadow. A complete list of cumulative projects is included in Appendix H-1 (Hub Plan, 30 Van Ness Avenue, 98 Franklin Street, and Hub Housing Sustainability Shadow Study).

DENSITY BONUS PROGRAMS

As discussed in Chapter 2, Project Description, the state density bonus program, as well as the City’s Affordable Housing Bonus Program (codified in Planning Code section 206), would be applicable in the Hub Plan area. This would result in the potential for added height for affordable

¹⁸ This includes the assumption that the 10 South Van Ness Avenue Project would be constructed as a 590-foot single tower. For informational purposes, the 400-foot-tall, double tower project variant is analyzed under Cumulative Scenario 2 in the Shadow Study (Appendix H-1).

housing projects. However, the locations where project sponsors might use the state or local density bonus programs are not known. Although these bonus programs permit an increase in residential density beyond that otherwise allowed, and enable project sponsors to request waivers or modifications with respect to planning code requirements, including height limits, they do not exempt subsequent projects from being subject to CEQA review. Therefore, pursuant to state density bonus law, any project for which additional height is requested would be evaluated further under CEQA.

IMPACT EVALUATION

Impact SH-1. The Hub Plan would create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces. (Significant and Unavoidable)

As summarized in **Table 3.F-1**, the Hub Plan would cast net new shadow on 15 existing parks.¹⁹ Significant shadows would be cast by the Hub Plan on McCoppin Hub (under the jurisdiction of public works). The shadow impacts on each affected existing park and open space are analyzed in more detail below. For parks that are under the jurisdiction of RPD, quantitative shadow calculations have been provided; the general timing of net new shadow effects for other non-RPD parks and open spaces are described qualitatively. Although proposed parks are included in **Table 3.F-1**, no quantitative calculations or CEQA impact conclusions are provided. **Figures 3.F-5 through 3.F-13** (pp. 3.F-22 through 3.F-30) show the shadow diagrams for the Hub Plan.

TABLE 3.F-1. SHADOW IMPACT SUMMARY – THE HUB PLAN

Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	The Hub Plan		
			% Increase	Timing	CEQA Conclusion
1. Jefferson Park Square	RPD	1.34%	0.0002%	Winter AM (16-28 days)	LTS
2. Margaret Hayward Playground	RPD	14.65%	0.09%	Winter AM (72-84 days)	LTS
3. Buchanan Street Mall	RPD	26.13%	0.01%	Fall/Winter AM (142-154 days)	LTS
4. Ella Hill Hutch Community Center	SFRED	n/a	n/a	Fall/Winter AM	LTS
5. Hayes Valley Playground	RPD	33.29%	0.07%	Fall/Spring AM (98-110 days)	LTS

¹⁹ The shadow analysis for the Hub Plan originally analyzed the shadow impacts from 170 Otis Street at a height of 125 feet. A change to the project resulted in a revised height of 150 feet at 170 Otis. PreVision Design evaluated this height increase and determined that the change would incrementally increase the amount of net new shadow cast by the Hub Plan. However, no publicly accessible open spaces affected by net new shadow cast by the Hub Plan would receive additional shadow due to this change, and no other publicly accessible open spaces that were not affected by net new shadow cast by the Hub Plan would receive net new shadow due to this change. This memorandum is included as Appendix H-3.

TABLE 3.F-1. SHADOW IMPACT SUMMARY – THE HUB PLAN

Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	The Hub Plan		
			% Increase	Timing	CEQA Conclusion
6. Koshland Community Park	RPD	15.45%	0.32%	Spring/Summer AM (113-125 days)	LTS
7. John Muir Elementary School	SFUSD	n/a	n/a	Spring/Summer AM	LTS
8. Page & Laguna Mini Park	RPD	50.80%	0.29%	Spr/Sum/Fall AM (153-165 days)	LTS
9. Patricia's Green	RPD	18.06%	1.53%	Fall/Win/Spr AM (254-266 days)	LTS
10. McCoppin Hub	PW	n/a	n/a	Spring/Summer AM	SU
11. SoMa West Skate and Dog Park	PW	n/a	n/a	Summer AM	LTS
12. Future Brady Park (proposed)	POPOS	n/a	n/a	Year-Round AM/PM	--
13. Civic Center Plaza	RPD	10.201%	0.004%	Winter Midday (30-42 days)	LTS
14. Future 11 th /Natoma Park (Proposed)	RPD	22.09%	6.77%	Year-Round PM (351-363 days)	--
15. United Nations Plaza	PW	n/a	n/a	Winter PM	LTS
16. Howard & Langton Mini Park	RPD	41.03%	0.034%	Fall/Spring PM (56-68 days)	LTS
17. Gene Friend Recreation Center	RPD	48.29%	0.0004%	Fall/Winter PM (14-26 days)	LTS
18. Victoria Manalo Draves Park	RPD	6.43%	0.01%	Fall/Spring PM (28-40 days)	LTS

Notes:

n/a = Shadow load not calculated for non-RPD parks and open spaces.

SU = Significant and unavoidable

LTS = less than significant

NI = No Impact

RPD = San Francisco Recreation and Parks Department

SFRED = City and County of San Francisco Real Estate Division

SFUSD = San Francisco Unified School District

POPOS = privately owned public open space

PW = San Francisco Public Works

JEFFERSON SQUARE PARK (LOCATION 1)

Within the six 30-minute observation periods conducted by Prevision Design, the number of users in Jefferson Square Park ranged from 12 to 28 people, with uses that varied at different times of day and days of the week. Weekday midday visitors typically passed through the park and rested on grassy areas; dog owners were prevalent in the mornings and afternoon/evenings during the week and throughout the day on weekends at nearly all observation times, with the strongest presence during the weekend evenings.

The Hub Plan²⁰ would result in net new shadow cast on Jefferson Square Park, adding approximately 2,001 net new annual sfh of shadow and increasing the sfh of shadow by 0.002 percent annually above current levels. This increase would result in a new annual total shadow load of 1.3434 percent. Net new shadow from the Hub Plan would occur within the first 10 minutes of the daily analysis period between approximately December 7 and January 3. Net new shadow would fall only on the southwest corner of the park, affecting one public entry point, a portion of the paved walkways, as well as some grassy or landscaped areas.

The days of maximum net new shadow on the park due to the Hub Plan would occur on December 20 and 21, when the Hub Plan would shade the northwest corner of the park starting at 8:19 a.m. and would be present for approximately 8 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 8 minutes, with an average duration of about 7 minutes across all affected dates. The largest net new shadow cast would occur at 8:19 a.m. on December 20 and 21 and cover 1,217 sf, equivalent to 0.3 percent of the total area of Jefferson Square Park. Throughout the affected period, the average size of shadows, when present, would be 820 sf (about 0.3 percent of the total park area).

As discussed above, the portions of Jefferson Square Park that would receive net new shadow from the Hub Plan would include some walkways, a point of entry, some landscaped areas, and a small portion of grass adjacent to a pathway. No fixed benches would receive net new shadow as a result of the Hub Plan. As such, the features that would receive new shading are of lower sensitivity because their use is typically transitory in nature (i.e., entry area/walkways) or the features are similar to features in many nearby areas of the park (i.e., landscaped/grassy areas), which would be unshaded when other areas would be affected by net new shadow from the Hub Plan. In addition, the duration of shadow would be under 10 minutes, occurring on a limited number of days each year. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Jefferson Square Park.

MARGARET HAYWARD PLAYGROUND (LOCATION 2)

Within the six 30-minute observation periods conducted by Prevision Design, the observed usage of Margaret Hayward Playground varied from two users on a weekday morning to four users at midday on the weekend. Park users were children with accompanying adults playing on the play equipment and sand pit in the children's playground and a few adults sitting and talking or eating next to the clubhouse on the eastern end of the park and using the tennis courts. It was observed that the user intensity of the park was highest midday and in the afternoon during the week and weekend due to the presence of children; however, the park was used sparingly on weekday mornings.

²⁰ Note that the as the 30 Van Ness Avenue Project is the only Hub Plan site that would cast any net new shadow on Jefferson Square Park.

The Hub Plan would result in net new shadow cast on Margaret Hayward Playground, adding approximately 711,259 net new annual sfh of shadow and increasing the sfh of shadow by 0.09 percent annually above current levels. This increase would result in a new annual total shadow load of 14.74 percent. Net new shadow from the Hub Plan would occur within the first 34 minutes of the daily analysis period between approximately November 9 and January 31. Net new shadow would fall on the western half of the park, at times casting shadow on two public entry points, portions of the tennis courts, the children's playground, six fixed benches, the grassy area, multi-use hard court, as well as the southwest corner of the ball fields.

The days of maximum net new shadow on the park due to the Hub Plan would occur on December 20 and 21, when the Hub Plan would cast shadow across the western half of the park starting at 8:19 a.m. and be present for approximately 34 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 34 minutes with an average duration of about 22 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 8:30 a.m. on December 20 and 21 and cover 51,978 sf, equivalent to 23.7 percent of the total area of Margaret Hayward Playground. Throughout the affected period the average size of shadows, when present, would be 24,929 sf (about 11.4 percent of the total park area).

As described above, the portions of Margaret Hayward Playground that would receive net new shadow from the Hub Plan include portions of nearly all features within the park. Those features that could be of higher sensitivity include the children's play area, the six fixed benches, and, to a lesser degree, the tennis courts and grass fields. Although all of these features would receive some net new shadow under the Hub Plan, the shadow would occur only in the early morning, prior to 8:45 a.m., over the winter months. Lower levels of park use would be likely at that time. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Margaret Hayward Playground.

BUCHANAN STREET MALL (LOCATION 3)

Within the six 30-minute observation periods conducted by Prevision Design, the observed usage varied from a low count of three users on a weekday morning, with four users walking through, to a peak intensity of 18 users on a weekend midday. Most users were children playing on the equipment in several small playgrounds; the next-largest group was made up of adults sitting on the benches while talking or eating. It was observed that the largest number of users of the park occurred in the midday and afternoon during the week with fewer users observed during morning visits. Many users were observed using the park as a walkway to cut through to adjacent streets. Overall usage was highest during weekdays, later school hours, and the weekend afternoon, when more children were present.

The Hub Plan would result in net new shadow cast on the Buchanan Street Mall, adding approximately 23,564 net new annual sfh of shadow and increasing the sfh of shadow by 0.01

percent annually above current levels. This increase would result in a new annual total shadow load of 26.14 percent. Net new shadow from the Hub Plan would occur within the first 17 minutes of the daily analysis period between approximately October 5 and March 7. Net new shadow would fall on small portions of all five sections of the Buchanan Street Mall and affect portions of the pedestrian pathway and grass/landscape areas. No net new shadow would be cast on either of the children's play areas or the basketball/hard court area.

The days of maximum net new shadow on the park due to the Hub Plan would occur on February 22 and October 18, when the Hub Plan would shade the southern half of the portion of Buchanan Street Mall between Fulton and McAllister streets starting at 8:22 a.m. and be present for approximately 17 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 17 minutes with an average duration of about nine minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 7:36 a.m. on November 1 and February 8 and cover 5,035 sf, equivalent to 6.4 percent of the total area of the Buchanan Street Mall. Throughout the affected period, the average size of shadows, when present, would be 1,245 sf (about 1.6 percent of the total park area).

The portions of Buchanan Street Mall that would receive net new shadow from the Hub Plan include walkways and some landscaped/grassy areas. Neither children's play areas nor the basketball court would receive net new shadow. As such, features that would receive new shading are characterized as being of lower sensitivity because their use is typically transitory in nature (i.e., walkways) or the features are similar to features in nearby areas of the park (i.e., landscaped/grassy areas). Finally, the shadow would occur primarily over the winter months in the early mornings (prior to 8:45 a.m.), times when relatively lower levels of park use would be likely. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Buchanan Street Mall.

ELLA HILL HUTCH COMMUNITY CENTER (LOCATION 4)

Ella Hill Hutch Community Center is under the jurisdiction of SFRED. Therefore, the below analysis qualitatively describes the general timing of net new shadow effects and does not discuss observed uses.

The Hub Plan would result in a small amount of net new shadow cast on the Ella Hill Hutch Center, occurring early in the morning from mid-October through early December and again in early January through late February. Net new shadow would fall over several areas of the park, shading the public entry path at Webster Street and Golden Gate Avenue, portions of the grassy and landscaped areas in the northwest corner of the park, portions of the tennis courts, the community center entrance on McAllister Street, and the adjacent surface vehicle parking lot. The largest net new shadow cast by the Hub Plan would occur just after 7:30 a.m. in early November and again in early February, covering just under 25 percent of the total park area at that moment.

Although the park features would receive some net new shadow under the Hub Plan, the shadow would occur for a very short period of time daily (approximately 10 minutes or less) and only over the late fall and winter months in the early mornings prior to 8:15 a.m., times when lower levels of park use would be likely. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Ella Hill Hutch Center.

HAYES VALLEY PLAYGROUND (LOCATION 5)

Within the six 30-minute observation periods conducted by Prevision Design, the observed usage at Hayes Valley Playground varied from no users during a weekday morning to a peak intensity of 27 users on a weekday midday. Observed uses included young children accompanied by adults using the children's playground, users playing basketball on the basketball court, and others sitting and talking or eating on the benches in the park. It was observed that the user intensity of the park was highest midday and in the afternoon during the week with the increase largely due to more children arriving after school hours. Fewer users were observed during morning visits. A children's birthday party was occurring midday during the week, accounting for approximately half of the park users at that time.

The Hub Plan would result in net new shadow cast on Hayes Valley Playground, adding approximately 66,280 net new annual sfh of shadow and increasing the sfh of shadow by 0.07 percent annually above current levels. This increase would result in a new annual total shadow load of 33.36 percent. Net new shadow from the Hub Plan would occur within the first 16 minutes of the daily analysis period between approximately August 24 and October 17 and again between February 23 and April 18. Net new shadow would fall on the western two-thirds of the park, affecting one public entry point, portions of the tennis and basketball courts, both children's play areas, the exercise and fitness area, and landscaped areas.

The days of maximum net new shadow on the park due to the Hub Plan would occur on March 8 and October 4, when the Hub Plan would shade the central and northwest corner of the park starting at 8:09 a.m. and be present for approximately 16 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 16 minutes with an average duration of about 12 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 8 a.m. on September 20 and March 22 and cover 9,661 sf, equivalent to 36.3 percent of the total area of Hayes Valley Playground. Throughout the affected period, the average size of shadows, when present, would be 4,683 sf (about 17.6 percent of the total park area).

As discussed above, the portions of Hayes Valley Playground that would receive net new shadow from the Hub Plan include one public entry point, portions of the tennis and basketball courts, both children's play areas, the exercise and fitness area, and landscaped areas. The features that could be of higher sensitivity include the children's play areas, and, to a lesser degree, the tennis and basketball courts and the exercise and fitness area. Although these features would receive some net new shadow under the Hub Plan, the net new shadow would occur in the fall and spring

for very short periods of time (16 minutes or less) during the early morning, prior to 8:30 a.m., when lower levels of park use would be likely. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Hayes Valley Playground.

KOSHLAND COMMUNITY PARK (LOCATION 6)

Within the six 30-minute observation periods conducted by Prevision Design, the observed usage at Koshland Community Park varied from a low count of two users during the weekend morning with only two users walking through, to a peak intensity of 30 users on a weekday afternoon with approximately one-third of the users walking through. In general, most users were children and adults playing on the play equipment in the children's playground; other users were sitting, eating, and socializing on the benches throughout the entire park. It was observed that the intensity of park use was highest midday and in the afternoon during the week. During the week, observed uses in the park in the morning included dog walking and an exercise class early in the morning. Two birthday parties were observed midday and in the afternoon during the week. Park usage increased during two of the three weekday visits when children were out of school for events and play. The community garden had one to three people watering or weeding during the weekday and weekend morning visits.

The Hub Plan would result in net new shadow cast on Koshland Community Park, adding approximately 427,055 net new annual sfh of shadow and increasing the sfh of shadow by 0.32 percent annually above current levels. This increase would result in a new annual total shadow load of 15.77 percent. Net new shadow from the Hub Plan would occur within the first 31 minutes of the daily analysis period between approximately April 20 and August 22. Net new shadow at various times would affect all portions of the park except for a small portion of the community garden area along the eastern edge of the park.

The days of maximum net new shadow on the park due to the Hub Plan would occur on May 17 and July 26, when the Hub Plan would shade the majority of the park starting at 7:07 a.m. and be present for approximately 31 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 31 minutes, with an average duration of about 21 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 7:15 a.m. on May 17 and July 26 and cover 30,119 sf of Koshland Community Park, equivalent to 84.3 percent of the total area. Throughout the affected period, the average size of shadows, when present, would be 11,914 sf (about 33.3 percent of the total park area).

As described above, the portions of Koshland Community Park that would receive net new shadow from the Hub Plan include two points of entry, a children's play area, a basketball/hard court, a community garden, walkways, and grassy/landscaped areas. The features that could be of higher sensitivity include the children's play areas, and, to a lesser degree, the basketball courts and the community garden area. The children's play area in particular would receive some net new shadow under the Hub Plan; however, the net new shadow would fall on this feature for

only about 10 minutes in the early morning and be gone prior to 7:30 a.m. Overall, features affected by the Hub Plan would only receive net new shadow over the summer in the early mornings prior to 7:45 a.m., times when lower levels of park use would be likely. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Koshland Community Park.

JOHN MUIR ELEMENTARY SCHOOL (LOCATION 7)

John Muir Elementary School is under the jurisdiction of SFUSD. Therefore, this analysis qualitatively describes the general timing of net new shadow effects and does not discuss observed uses. The Hub Plan would result in net new shadow cast on the John Muir Elementary School Playground. The central portion of the playground area where the basketball court is located would be affected by net new shadow for a short duration of time during early morning for a few weeks in the late spring and again in the late summer. Although this feature is characterized as moderately sensitive to the effects of net new shadow, shadow cast by the Hub Plan would occur for a short duration, most likely prior to 8 a.m. and well before the playground would be open to the public at 9 a.m. Therefore, the Hub Plan would result in *less-than-significant* shadow on to John Muir Elementary School.

PAGE AND LAGUNA MINI PARK (LOCATION 8)

Within the six 30-minute observation periods conducted by Prevision Design, the number of users in the park ranged from zero to one person. During five of six visits, no park visitors were observed to be present. On the weekday afternoon site visit, a single user was seen walking through the park.

The Hub Plan would result in net new shadow cast on Page and Laguna Mini Park, adding approximately 71,416 net new annual sfh of shadow and increasing the sfh of shadow by 0.29 percent annually above current levels. This increase would result in a new annual total shadow load of 51.09 percent. Net new shadow from the Hub Plan would occur within the first 52 minutes of the daily analysis period over several time frames: between February 16 and March 7, April 20 and August 22, and October 5 and 24. Net new shadow would fall only on the northern and southern portions of the park, affecting one public entry point, a portion of the paved walkways, one fixed bench, some grassy or landscaped areas, and a small section of the community garden.

The days of maximum net new shadow on the park due to the Hub Plan would occur on June 14 and 28, when the Hub Plan would shade the northern and southern portions of the park starting at 6:48 a.m. and be present for approximately 50 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 52 minutes, with an average duration of about 36 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 7:16 a.m. on May 24 and July 19 and cover 1,349 sf, equivalent to 20.5 percent of the total area of Page and Laguna Mini Park. Throughout the affected period, the average size of shadows, when present, would be 829 sf (about 12.6 percent of the total park area).

The portions of Page and Laguna Mini Park that would receive net new shadow from the Hub Plan include one public entry point, a portion of the paved walkways, one fixed bench, some grassy or landscaped areas, and a small section of the community garden. Features that would receive new shading, including the entry and walkways, are characterized as being of lower sensitivity because their use is typically transitory in nature. Affected features that could be considered of higher sensitivity include the community garden and the fixed bench; however, these features would experience shading for a limited amount of time, mainly during early-morning hours. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Page and Laguna Mini Park.

PATRICIA'S GREEN (LOCATION 9)

Within the six 30-minute observation periods conducted by Prevision Design, the observed usage at Patricia's Green varied from a low count of 80 users on a weekday morning, with approximately one-half of the users walking through, to a peak intensity of 183 users on a weekend afternoon, with approximately one-third of the users walking through. The majority of users were walking and playing with dogs, sitting, and eating and socializing on the benches and picnic tables throughout the entire park. It was observed that the intensity of park use was highest at midday during the week when people eat lunch or watch a special event, such as a live music performance. Overall, observed peak use at the park occurred weekday midday and weekend afternoon; however, the park was observed to be actively used at all times.

The Hub Plan would result in net new shadow cast on Patricia's Green, adding approximately 1,018,855 net new annual sfh of shadow and increasing the sfh of shadow by 1.53 percent annually above current levels. This increase would result in a new annual total shadow load of 19.59 percent. Net new shadow from the Hub Plan would occur within the first 69 minutes of the daily analysis period between approximately August 10 and May 2. Net new shadow would affect all portions of the park at various times throughout the year.

The days of maximum net new shadow on the park due to the Hub Plan would occur on March 8 and October 4, when the Hub Plan would shade the majority of the park starting at 8:09 a.m. and be present for approximately 58 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 69 minutes with an average duration of about 33 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 8:45 a.m. on March 1 and October 11 and cover 15,404 sf, equivalent to 86.0 percent of the total area of Patricia's Green. Throughout the affected period, the average size of shadows, when present, would be 6,428 sf (about 35.9 percent of the total park area).

Portions of Patricia's Green would receive net new shadow from the Hub Plan. The portions of Patricia's Green that would likely be most sensitive to the addition of net new shadow would be the children's play area, the park's fixed benches, and the tables and seating areas. All of these features would receive some net new shadow, the presence of which would be noticeable to users

of the park. The times for net new shadow would be in the early morning, prior to 9 a.m. The children's play area, which could be the most sensitive to additional shadow, would not receive net new shadow at any point after 8:30 a.m. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Patricia's Green.

McCOPPIN HUB (LOCATION 10)

McCoppin Hub is under the jurisdiction of public works. Therefore, this analysis qualitatively describes the general timing of net new shadow effects and does not discuss observed uses. The Hub Plan would result in net new shadow cast on McCoppin Hub between late April and late August. On the affected dates, net new shadow would fall early in the morning for up to just under two hours prior to 9 a.m. Net new shadow would affect all parts of the park at various times throughout the affected period (i.e., late April through late August). The date when the most net new shadow due to the Hub Plan would occur is around June 21, when the park would be cast in shadow starting at 6:46 a.m., which would recede over the next two hours. The largest net new shadow cast by the Hub Plan would occur around 8 a.m. mid-June and, at the moment of maximum shading, shadow all of McCoppin Hub.

All portions of McCoppin Hub would receive net new shadow from the Hub Plan, but the features that would be most sensitive to the addition of net new shadow would be the fixed benches. The times for net new shadow would be in the early morning, prior to 8:30 a.m., when lower overall levels of park use would be typical. However, significant areas of net new shadow would be noticeable to users of the 0.1-acre park during affected times. There are no feasible mitigation measures that would reduce shadow impacts from the Hub Plan on McCoppin Hub. The shadow impacts of the Hub Plan on McCoppin Hub would be *significant and unavoidable*.

SOMA WEST SKATE AND DOG PARK (LOCATION 11)

SoMa West Skate and Dog Park is under the jurisdiction of public works. Therefore, this analysis qualitatively describes the general timing of net new shadow effects and does not discuss observed uses. The Hub Plan would result in net new shadow cast on SoMa West Skate and Dog Park between mid-March and late September. Over the affected dates, net new shadow would fall early in the morning for up to just under two hours prior to 9 a.m. Net new shadow would affect only the skate park section of the park; no net new shadow would reach the dog park at any time of year. The date where the most net new shadow due to the Hub Plan would occur around June 21, when the park would be cast in shadow starting at 6:46 a.m., with shadows receding over the next two hours. The largest net new shadow cast by the Hub Plan would occur around 7:30 a.m. mid-June and at the moment of maximum shading cover less than 25 percent of the skateboard area of the SoMa West Skate and Dog Park.

Areas of net new shadow from the Hub Plan would most likely not be noticeable to users of the park during affected hours; the park is already in shadow because of its location directly under

an elevated freeway. Therefore, because a large amount of shadow currently exists, impacts on the SoMa West Skate and Dog Park would be *less than significant*.

FUTURE BRADY PARK (LOCATION 12) (PROVIDED FOR INFORMATIONAL PURPOSES)

The future Brady Park would be an approximately 0.46-acre POPOS. Because this park is not existing and not under the jurisdiction of RPD, the analysis presented below is for informational purposes only and no observed uses or significance conclusions are provided.

The future Brady Park would receive new shading from the Hub Plan throughout the year in the morning hours typically between approximately 9 a.m. and 11 a.m. Over winter months, afternoon shadow would additionally arrive around 1 p.m. and remain on the park throughout the afternoon. All portions of the future Brady Park would receive some net new shadow from the Hub Plan at various times throughout the year. Based on the conceptual design program for Brady Park, features that would receive net new shadow from the Hub Plan include areas of hardscape, pathways, raised succulent gardens with seating walls, a play structure, landscape planting, sculpture, and the “porch” area with movable seating. Although all features within the park would be affected, the features most sensitive to net new shadow would be the fixed seating areas and the play structure. The precise nature and duration of shading on particular features, as well as the nature and intensity of use of the future park, is not known, pending the construction of this park. However, it is likely that the late afternoon shadow cast on the more sensitive features of Brady Park would be more noticeable to park users than the effects of early morning shadow based on general patterns of use observed in other parks in San Francisco.

CIVIC CENTER PLAZA (LOCATION 13)²¹

Within the six 30-minute observation periods conducted by Prevision Design, the number of users in Civic Center Plaza ranged from approximately 280 to 900, with uses that varied at different times of day and days of the week. It is visited daily by large numbers of users that pass through on their way to or from San Francisco City Hall or other nearby destinations. The plaza is also used on a periodic basis for larger or special events or rallies. Overall, Civic Center Plaza was observed to be actively used at all times, with peak use occurring over the weekend visits, especially in the afternoon. Over the course of the use observation visits, between 45 and 75 percent of park users were observed to be passing through, with the remainder using the park as a destination. During the observation, an ice skating rink drew high numbers of weekend visitors (100 to 170); fewer visitors were observed on weekdays (10 to 40). The children’s play areas were

²¹ Due to design changes, all analysis for Civic Center Plaza is based on: Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. “Changes in shadow effects of the revised 30 Van Ness Avenue Project on Civic Center Plaza relative to the prior version of the 30 Van Ness Avenue Project analyzed in the Shadow analysis report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR (February 11, 2019).” February 2019.

observed to have between 25 and 150 users. The café kiosk was observed to attract between 10 and 30 users across the park visits. Relatively few users (five to 10) were observed using the grassy areas over the course of the observation visits.

The Hub Plan²² would result in net new shadow cast on Civic Center Plaza, adding approximately 29,748 net new annual sfh of shadow and increasing the sfh of shadow by 0.004 percent annually above current levels. This increase would result in a new annual total shadow load of 10.205 percent. Net new shadow from the Hub Plan would occur for up to 90 minutes in the early afternoon between approximately November 30 and January 10. Net new shadow would fall only along the southern edge of the park, affecting several grassy areas and several paved walkways. Net new shadow would not fall on either of the children's play areas.

The days of maximum net new shadow on the park due to the Hub Plan would occur on December 20 and 21, when the Hub Plan would shade portions of the southern edge of the park starting just before 1 p.m. and move eastward across the park over the course of approximately 90 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 90 minutes, with an average duration of about 70 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 2:00 p.m. on December 13 and 28 and cover 1,219 sf, equivalent to 0.547 percent of the total area of Civic Center Plaza. Throughout the affected period, the average size of shadows, when present, would be 630 sf (about 0.3 percent of the total park area).

As discussed above, the portions of Civic Center Plaza that would receive net new shadow from the Hub Plan include several grassy areas, several paved walkways, and a café kiosk on the southern edge of the park. Features that would receive new shading are characterized as being of lower sensitivity because their use is either typically transitory in nature (i.e., walkways and café kiosk) or the features are similar to features in many nearby areas of the park (i.e., grassy areas), which would be unshaded when other areas would be affected by net new shadow from the Hub Plan. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Civic Center Plaza.

FUTURE 11TH/NATOMA PARK SITE (LOCATION 14) (PROVIDED FOR INFORMATIONAL PURPOSES)

As the 11th/Natomia Park site is not yet a park and no future programming information has been developed or approved, the possible features affected and qualitative impacts of project-generated shadow on such features are undetermined and not reviewed. Since this park is not existing, the analysis presented below is for informational purposes only and no observed uses or significance conclusions are provided.

²² The site for the 30 Van Ness Avenue Project is the only Hub Plan site that would cast any net new shadow on Civic Center Plaza.

The Hub Plan would result in net new shadow cast on 11th/Natoma Park site, adding approximately 4,931,925 net new annual sfh of shadow and increasing the sfh of shadow by 6.77 percent annually above current levels. This increase would result in a new annual total shadow load of 28.86 percent. Net new shadow from the Hub Plan would occur in the late afternoon and early evening and be present for up to 134 minutes between approximately April 6 and September 5 and again between September 7 and April 4. Net new shadow would be cast over all but a small northern section of the park area.

The days of maximum net new shadow on the park due to the Hub Plan would occur on January 18 and November 22, when the Hub Plan would shade the western corner of the park starting just prior to 2 p.m. and grow in size for approximately 120 minutes through the end of the daily analysis period (3:54 p.m.) covering the majority of the park's area. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 134 minutes, with an average duration of about 101 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 2:45 p.m. on December 6 and January 4 and cover 18,233 sf, equivalent to 93.2 percent of the total area of the 11th/Natoma Park site. Throughout the affected period, the average size of shadows, when present, would be 829 sf (about 12.6 percent of the total park area).

UNITED NATIONS PLAZA (LOCATION 15)

United Nations Plaza is under the jurisdiction of the public works department. Therefore, this analysis qualitatively describes the general timing of net new shadow effects and does not discuss observed uses. The Hub Plan would result in net new shadow cast on United Nations Plaza, adding a small amount of net new shadow that would occur for up to 45 minutes in the late afternoon between late November and mid-January. Net new shadow would fall only on a small northern portion of the plaza and a tiny sliver of the edge of the plaza adjacent to Market Street, affecting one public entry point and a BART/Muni access stair. The days of maximum net new shadow on the plaza due to the Hub Plan would occur around December 21, when the Hub Plan would shade the northern corner of the plaza starting just before 3 p.m. and be present for approximately 45 minutes. The largest net new shadow cast by the Hub Plan would occur in the late afternoon and would cover less than 5 percent of the total area of United Nations Plaza.

The portions of United Nations Plaza that would receive net new shadow from the Hub Plan include a plaza point of entry and a BART/Muni access stair. Therefore, features that would receive new shading are characterized as being of lower sensitivity because their use is typically transitory in nature. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on United Nations Plaza.

HOWARD AND LANGTON MINI PARK (LOCATION 16)

Within the six 30-minute observation periods conducted by Prevision Design, the observed usage at Howard and Langton Mini Park varied from one to nine users. Most park users were observed to be gardening, with some users using one of the two tables to eat, read, or socialize. Overall, observed peak use at the park occurred on weekends at midday and in the afternoon; use of the park, based on these observations, is characterized as low to moderate.

The Hub Plan would result in net new shadow cast on Howard and Langton Mini Park, adding approximately 12,767 net new annual sfh of shadow and increasing the sfh of shadow by 0.034 percent annually above current levels. This increase would result in a new annual total shadow load of 41.059 percent. Net new shadow from the Hub Plan would occur within the last 17 minutes of the daily analysis period between approximately February 16 and March 21 and again between September 21 and October 24. Net new shadow would fall only on the northern corner of the park, affecting the public entry gate and a portion of the community garden.

The days of maximum net new shadow on the park due to the Hub Plan would occur on March 8 and October 4, when shadow from the Hub Plan would shade the northern corner of the park starting just before 5:30 p.m. and be present for approximately 15 minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 17 minutes, with an average duration of about 12 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 5:30 p.m. on March 8 and October 4 and cover 3,522 sf, equivalent to 16.4 percent of the total area of Howard and Langton Mini Park. Throughout the affected period, the average size of shadows, when present, would be 1,141 sf (about 11.2 percent of the total park area).

The portions of Howard and Langton Mini Park that would receive net new shadow from the Hub Plan would include the public point of entry and portions of the community garden. Although some users of the community garden may notice the presence of a small amount of net new shadow if they were to be present during the affected period, the short duration and limited number of dates annually of net new shadow would be unlikely to affect the use and enjoyment of the park or have any impact on plant health and growth. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Howard and Langton Mini Park.

GENE FRIEND RECREATION CENTER (LOCATION 17)

Within the six 30-minute observation periods conducted by Prevision Design, the intensity of park usage varied from a low count of 10 users on a weekend morning to a peak intensity of 59 users occurring on a weekday afternoon. Benches were consistently used with approximately two to nine users sitting, relaxing, or socializing, with the exception of the weekend afternoon. Similar levels of use were observed at the basketball court with approximately one to 21 users. It was observed that the intensity of the park was highest during the weekday afternoon, likely due to after-school activities. During this time, all areas of the park were used. Overall, observed peak

use of the park occurred on a weekday afternoon; at other times, one-third of the peak number of users, or less, was observed. Accordingly, the intensity of use varied but is characterized as low to moderate.

The Hub Plan would result in net new shadow cast on the Gene Friend Recreation Center, adding approximately 700 sfh net new annual sfh of shadow and increasing the sfh of shadow by 0.0004 percent annually above current levels. This increase would result in a new annual total shadow load of 48.2937 percent. Net new shadow from the Hub Plan would occur within the last 6 minutes of the daily analysis period between February 16 and 28 and again between October 12 and 24. Net new shadow would fall only on a very small area in the northeast portion of the park, affecting a small portion of the basketball court.

The days of maximum net new shadow on the park due to the Hub Plan would occur on February 22 and October 18, when the Hub Plan would shade a portion of the basketball court starting at 5:27 p.m. and be present for approximately six minutes (until the end of the daily analysis period). The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 6 minutes, with an average duration of about six minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 5:27 p.m. on February 22 and October 18 and cover 519 sf, equivalent to 1.2 percent of the total area of the Gene Friend Recreation Center. Throughout the affected period, the average size of shadows, when present, would be 519 sf (about 1.2 percent of the total park area).

The portions of Gene Friend Recreation Center that would receive net new shadow from the Hub Plan would include a small portion of the basketball court. Although this area could be considered to be of moderate sensitivity, the extremely small area of shading and its short duration would make it unlikely that park users would be adversely affected. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Gene Friend Recreation Center.

VICTORIA MANALO DRAVES PARK (LOCATION 18)

Within the six 30-minute observation periods conducted by Prevision Design, the number of users in the park ranged from four to 68, with uses that varied at different times of day and days of the week. Observed park uses included children playing in the playground areas and people eating lunch and resting on benches, walking dogs, playing basketball or soccer, barbecuing, working in the community garden, and, for a small portion of observed users, passing through the park. Overall, observed usage was higher during the weekday midday and afternoon visits as well as during the weekend morning and midday visits.

The Hub Plan would result in net new shadow cast on the Victoria Manalo Draves Park, adding approximately 45,921 net new annual sfh of shadow and increasing the sfh of shadow by 0.01 percent annually above current levels. This increase would result in a new annual total shadow load of 6.44 percent. Net new shadow from the Hub Plan would occur within the last nine minutes of the daily analysis period between approximately March 2 and 21 and again between September

21 and October 10. Net new shadow would fall only on portions of the northern and central sections of the park, affecting one public entry point, the basketball court, a portion of one of the children's play areas, several fixed seating areas, and paved walkways and some grassy or landscaped areas.

The days of maximum net new shadow on the park due to the Hub Plan would occur on March 8 and October 4, when the Hub Plan would shade the northern corner of the park starting at approximately 5:38 p.m. and be present for approximately nine minutes (until the end of the daily analysis period). The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and nine minutes with an average duration of about eight minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 5:47 p.m. on March 8 and October 4 and cover 14,357 sf, equivalent to 13.1 percent of the total area of the Victoria Manalo Draves Park. Throughout the affected period, the average size of shadows, when present, would be 13,502 sf (about 12.3 percent of the total park area).

The portions of Victoria Manalo Draves Park that would be more sensitive to the addition of net new shadow are areas where users remain rather than pass through; these areas were observed to be well used. Based on the use observations performed, the basketball court, the children's play area, the park's fixed benches, and the tables and seating areas would be considered to be the most sensitive areas under the criterion discussed above. Although several of these more sensitive features would receive net new shadow, the duration of such shadow would be very short (under 10 minutes); these features would be affected only on a limited number of days each year. Other features that would receive new shading are characterized as being of lower sensitivity because that their use is either typically transitory in nature (i.e., entry area/walkways) or the features are similar to features in many nearby areas in the park (i.e., landscaped/grassy areas), which would be unshaded when other areas would be affected by net new shadow from the Hub Plan. Therefore, the Hub Plan would result in *less-than-significant* shadow impacts on Victoria Manalo Draves Park.

PUBLIC STREETS AND SIDEWALKS

Where the Hub Plan would include increases to the allowable building heights, the extent and duration of shadows cast on public streets and sidewalks could increase if and when individual taller buildings are developed, compared to those that currently exist. Although implementation of the Hub Plan would add net new shadows, these shadows would be transitory in nature and would not substantially affect the use of the streets and sidewalks. As shown in **Figure 3.F-2** through **Figure 3.F-13** (pp. 3.F-19 to 3.F-30), the overall increase in shading of sidewalks in the Hub Plan area and vicinity would not represent a substantial change, particularly during midday hours when more people are likely to be using sidewalks for leisure activities, as opposed to simply walking to and from work. The Hub Plan would not increase shadows above levels that

are common and generally expected in a densely developed urban environment. Therefore, shadow impacts on public streets and sidewalks would be *less than significant*.

CONCLUSIONS

As described above, the Hub Plan would generate net new shadow on each of the open spaces analyzed and on public streets and sidewalks. In total, 15 existing parks would be affected by the Hub Plan. For the reasons discussed above, the RPD parks and open spaces were evaluated quantitatively and for all other parks, a qualitative analysis was provided.

For the Hub Plan, the annual increase in new shadow on existing RPD parks and open spaces would range from 0.0002 percent (Jefferson Square Park) to 1.53 percent (Patricia's Green) throughout the year, with the number of days of increased shadow ranging from approximately 16 to 363 days per year. Net shadow impacts would be less than significant or no impact for the all RPD parks and for public streets and sidewalks.

With regard to the qualitative shadow impacts for the non-RPD parks and open spaces, the majority would not result in significant net new shadows. However, shadow impacts from the Hub Plan on McCoppin Hub would be *significant*.

Mitigation Measures

There are no feasible mitigation measures that would reduce shadow impacts from the Hub Plan on McCoppin Hub.

Significance After Mitigation

The shadow impacts from the Hub Plan would be *significant and unavoidable* on McCoppin Hub because of the annual increase in the new shadows and the timing.

The department does not consider plan- or project-related shading on proposed open spaces in the impact analysis of shadow. Therefore, the discussion above relating to the future Brady Park and future 11th/Natoma Park Site is provided for informational purposes only, and no impact conclusion is required or provided. The Hub Plan would be expected to increase shadows at the future 11th/Natoma Park Site, under the jurisdiction of RPD. In addition, all portions of the future Brady Park would receive some net new shadow from the Hub Plan.

Future housing projects may apply for various housing bonus programs that would allow buildings to be taller than the proposed height limits. Although the current proposed height limits analyzed in this EIR are the most reasonable assumptions currently known, future buildings on the 18 sites proposed for upzoning under the Hub Plan, as well as other sites throughout the Hub Plan area that are not proposed for upzoning, may be above the height limits that have been evaluated. Thus, shadows on some of the parks and open spaces may be greater than those disclosed in this EIR; however, since the height and location of where height increases could occur are currently unknown, an analysis of future density bonus is speculative. Any

project for which additional height is requested, pursuant to state density bonus law, would be evaluated further in accordance with CEQA at that time.

Impact SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces. (Less than Significant)

As summarized in **Table 3.F-2**, p. 3.F-62, the 30 Van Ness Avenue Project²³ would cast net new shadow on eight existing parks. In addition, the 98 Franklin Street Project would cast net new shadow on two existing parks and one proposed park. For parks under the jurisdiction of RPD, quantitative shadow calculations have been provided; the general timing of net new shadow effects for other non-RPD parks and open spaces is qualitatively listed. Although proposed parks are included in **Table 3.F-2**, no quantitative calculations or CEQA impact conclusions are provided. The net new shadows that would result from the 30 Van Ness Avenue Project and the 98 Franklin Street Project are shown in **Figures 3.F-14 through 3.F-22**, pp. 3.F-31 through 3.F-39. For purposes of this analysis, the observed uses at these parks are not repeated; refer to Impact SH-1, above.

The following parks and open spaces analyzed for the Hub Plan (under Impact SH-1, above) would not be affected by the 30 Van Ness Avenue Project or the 98 Franklin Street Project and, therefore, are not discussed further below: Buchanan Street Mall, Ella Hill Hutch Community Center, John Muir Elementary School, McCoppin Hub, SoMa West Skate and Dog Park, the future Brady Park, Gene Friend Recreation Center, and Victoria Manalo Draves Park. No shadows would be cast on these parks by either the 30 Van Ness Avenue Project or the 98 Franklin Street Project; therefore, *no impacts* would result.

JEFFERSON SQUARE PARK (LOCATION 1)

30 Van Ness Avenue Project. The proposed 30 Van Ness Avenue Project would result in net new shadow cast on Jefferson Square Park, but because the 30 Van Ness Avenue Project is the only Hub Plan site that would cast any net new shadow on Jefferson Square Park, the description of the size, amount, timing and locations of shadow under the Hub Plan Scenario (Impact SH-1) is identical to that under the Hub Plan Scenario as described above. **Table 3.F-2** includes a breakdown of net new shadow for the 30 Van Ness Avenue Project scenario.

²³ The 30 Van Ness Avenue analysis is based on plans dated September 13, 2018. However, since the September 2018 plans, the 30 Van Ness Avenue Project has been redesigned to reduce shadow impacts on Civic Center Plaza. Therefore, the analysis of impacts on Civic Center Plaza has been updated with the revised plans. However, the analysis of other affected open spaces represents a version of the 30 Van Ness Avenue Project that is larger in mass and bulk than the version described in the below Civic Center Plaza shadow analysis. As the mass of the revised 30 Van Ness Avenue Project has been reduced since the September 2018 plans, shadow effects of the revised project would be equal to or lesser than the shadow as described in the analysis of the other parks/open spaces sections.

TABLE 3.F-2. SHADOW IMPACT SUMMARY FOR 30 VAN NESS AVENUE PROJECT AND 98 FRANKLIN STREET PROJECT

Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	30 Van Ness Avenue Project			98 Franklin Street Project		
			% Increase	Timing	CEQA Conclusion	% Increase	Timing	CEQA Conclusion
Jefferson Park Square	RPD	1.34%	0.0002%	Winter AM (16-28 days)	LTS	--	--	NI
Margaret Hayward Playground	RPD	14.65%	0.06%	Winter AM (72-84 days)	LTS	--	--	NI
Buchanan Street Mall	RPD	26.13%	--	--	NI	--	--	NI
Ella Hill Hutch Community Center	SFRED	n/a	--	--	NI	--	--	NI
Hayes Valley Playground	RPD	33.29%	0.01%	Fall/Spring AM (28-40 days)	LTS	--	--	NI
Koshland Community Park	RPD	15.45%	0.02%	Spring/Summer AM (29-41 days)	LTS	--	--	NI
John Muir Elementary School	SFUSD	n/a	--	--	NI	--	--	NI
Page & Laguna Mini Park	RPD	50.80%	--	--	NI	0.03%	Summer AM (59-69 days)	LTS
Patricia's Green	RPD	18.06%	0.36%	Fall/Spring AM (84-96 days)	LTS	0.39%	Fall/Spring AM (254-266 days)	LTS
McCoppin Hub	PW	n/a	--	--	NI	--	--	NI
SoMa West Skate and Dog Park	PW	n/a	--	--	--	--	--	--
Future Brady Park (proposed)	POPOS	n/a	--	--	--	--	--	--
Civic Center Plaza	RPD	10.201%	0.004%	Winter Midday (30-42 days)	LTS	--	--	NI
Future 11 th /Natoma Park (proposed)	RPD	22.09%	--	--	--	0.15%	Summer PM (85-97 days)	--
United Nations Plaza	PW	n/a	n/a	Winter PM	LTS	--	--	NI
Howard & Langton Mini Park	RPD	41.03%	0.004%	Fall/Spring PM (14-26 days)	LTS	--	--	NI

TABLE 3.F-2. SHADOW IMPACT SUMMARY FOR 30 VAN NESS AVENUE PROJECT AND 98 FRANKLIN STREET PROJECT

Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	30 Van Ness Avenue Project			98 Franklin Street Project		
			% Increase	Timing	CEQA Conclusion	% Increase	Timing	CEQA Conclusion
Gene Friend Recreation Center	RPD	48.29%	--	--	NI	--	--	NI
Victoria Manalo Draves Park	RPD	6.43%	--	--	NI	--	--	NI

Notes:

n/a = Shadow load not calculated for non-RPD parks and open spaces.

SU = Significant and unavoidable

LTS = less than significant

NI = No Impact

-- = Park/open space not affected by Hub Plan or 30 Van Ness Avenue Project.

RPD = San Francisco Recreation and Parks Department

SFRED = City and County of San Francisco Real Estate Division

SFUSD = San Francisco Unified School District

POPOS = privately owned public open space

PW = San Francisco Public Works

Portions of Jefferson Square Park that would receive net new shadow from the 30 Van Ness Avenue Project include a point of entry, walkways, and some landscaped areas, as well as a small portion of grass adjacent to the pathway. Features that would receive new shading are characterized as being of lower sensitivity because their use is either typically transitory in nature (i.e., entry area/walkways) or the features are similar to features in many nearby areas of the park (i.e., landscaped/grassy areas), which would be unshaded when other areas would be affected by net new shadow from the 30 Van Ness Avenue Project. In addition, the duration of such shadow would be under 10 minutes and on a limited number of dates each year. Therefore, the 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on Jefferson Square Park.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on Jefferson Park Square; therefore, *no impact* would occur.

MARGARET HAYWARD PLAYGROUND (LOCATION 2)

30 Van Ness Avenue Project. The proposed 30 Van Ness Avenue Project would result in net new shadow cast on Margaret Hayward Playground, adding approximately 456,286 net new annual sfh of shadow and increasing the sfh of shadow by 0.06 percent annually above current levels. This increase would result in a new annual total shadow load of 14.71 percent. Net new shadow from the 30 Van Ness Avenue Project would occur within the first 28 minutes of the daily analysis period between approximately November 9 and January 31. Net new shadow would fall on the same areas affected by the Hub Plan, as discussed in Impact SH-1.

The days of maximum net new shadow on the park due to 30 Van Ness Avenue would occur on December 20 and 21, when the 30 Van Ness Avenue Project would cast shadow across the western half of the park starting at 8:19 a.m. and be present for approximately 28 minutes. The duration of 30 Van Ness Avenue-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 28 minutes with an average duration of about 17 minutes across all affected dates. The largest net new shadow cast by 30 Van Ness Avenue would occur at 8:15 a.m. on December 13 and 28 and cover 34,758 sf, equivalent to 15.8 percent of the total area of Margaret Hayward Playground. Throughout the affected period, the average size of shadows, when present, would be 22,090 sf (about 10.1 percent of the total park area).

The portions of Margaret Hayward Playground that would receive net new shadow from the 30 Van Ness Avenue Project include portions of nearly all features within the park. Those features that could be of higher sensitivity include the children's play area, the six fixed benches, and, to a lesser degree, the tennis courts and grass fields. Although all of these features would receive some net new shadow under the 30 Van Ness Avenue Project, the shadow would occur only over the winter months in the early mornings prior to 8:45 a.m., times when lower levels of park use would be likely. Therefore, the 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on Margaret Hayward Playground.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on Margaret Hayward Playground; therefore, *no impact* would occur.

HAYES VALLEY PLAYGROUND (LOCATION 5)

30 Van Ness Avenue Project. The 30 Van Ness Avenue Project would result in net new shadow cast on Hayes Valley Playground, adding approximately 13,774 net new annual sfh of shadow and increasing the sfh of shadow by 0.01 percent annually above current levels. This increase would result in a new annual total shadow load of 33.30 percent. Net new shadow from the 30 Van Ness Avenue Project would occur within the first 16 minutes of the daily analysis period between approximately March 30 and April 18 and again between August 24 and September 12. Net new shadow would fall on the southwestern half of the park, affecting one public entry point, portions of the tennis court, portions of both children's play areas, and some landscaped areas.

The days of maximum net new shadow on the park due to the 30 Van Ness Avenue Project would occur on April 5 and September 6, when the 30 Van Ness Avenue Project would shade portions of the center and northwest corner of the park starting at 7:44 a.m. and be present for approximately 15 minutes. The duration of 30 Van Ness Avenue-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 16 minutes with an average duration of about 12 minutes across all affected dates. The largest net new shadow cast by 30 Van Ness Avenue would occur at 7:44 a.m. on April 5 and September 6 and cover 6,711 sf, equivalent to 25.2 percent of the total area of Hayes Valley Playground. Throughout the affected period, the average size of shadows, when present, would be 2,838 sf (about 10.7 percent of the total park area).

The portions of Hayes Valley Playground that would receive net new shadow from the 30 Van Ness Avenue Project include one public entry point, portions of the tennis courts, both children's play areas, and landscaped areas. The features that could be of higher sensitivity include the children's play areas, and, to a lesser degree, the tennis courts. Although these features would receive some net new shadow under the 30 Van Ness Avenue Project, the net new shadow would occur in the fall and spring for very short periods of time (16 minutes or less) during the early morning, prior to 8:30 a.m., when lower levels of park use would be likely. Therefore, 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on Hayes Valley Playground.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on Hayes Valley Playground; therefore, *no impact* would occur.

KOSHLAND COMMUNITY PARK (LOCATION 6)

30 Van Ness Avenue Project. The 30 Van Ness Avenue Project would result in net new shadow cast on Koshland Community Park, adding approximately 23,640 net new annual sfh of shadow and increasing the sfh of shadow by 0.02 percent annually above current levels. This increase would result in a new annual total shadow load of 15.47 percent. Net new shadow from the 30

Van Ness Avenue Project would occur within the first 8 minutes of the daily analysis period between approximately April 20 and August 22. Net new shadow would fall only along the northern edge of the park along Page Street, affecting one public entry point, the basketball/hard court, a portion of the community garden, as well as some landscaped areas.

The days of maximum net new shadow on the park due to the 30 Van Ness Avenue Project would occur on June 21, when the 30 Van Ness Avenue Project would shade the northern edge of the park starting at 6:46 a.m. and be present for approximately 8 minutes. The duration of 30 Van Ness Avenue Project-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 8 minutes, with an average duration of about 6 minutes across all affected dates. The largest net new shadow cast by the 30 Van Ness Avenue Project would occur at 6:46 a.m. on June 21 and cover 9,110 sf—equivalent to 25.2 percent of the total area of Koshland Community Park. Throughout the affected period, the average size of shadows, when present, would be 5,646 sf (about 15.8 percent of the total park area).

The portions of Koshland Community Park that would receive net new shadow from the 30 Van Ness Avenue Project would include one public entry, small portions of the community garden and basketball court, and grassy or landscaped areas along the northern edge of the park. In addition, the duration of shadow cast by the 30 Van Ness Avenue Project would be under 10 minutes and on a limited number of dates each year. The features that could be of higher sensitivity include the basketball courts and the community garden area. Overall, features affected by the 30 Van Ness Avenue Project would only receive net new shadow over the summer in the early mornings prior to 7:45 a.m., times when lower levels of park use would be likely. Therefore, the 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on Koshland Community Park.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on Koshland Community Park; therefore, *no impact* would occur.

PAGE AND LAGUNA MINI PARK (LOCATION 8)

30 Van Ness Avenue Project. The 30 Van Ness Avenue Project would not generate any net new shadow that would fall on Page and Laguna Mini Park; therefore, *no impact* would occur.

98 Franklin Street Project. The 98 Franklin Street Project would result in net new shadow cast on the Page and Laguna Mini Park, adding approximately 8,039 net new annual sfh of shadow and increasing the sfh of shadow by 0.03 percent annually above current levels. This increase would result in a new annual total shadow load of 50.83 percent. Net new shadow from 98 Franklin Street would occur within the first 20 minutes of the daily analysis period between approximately May 18 and July 25. Net new shadow would fall only on the northern edge the park, affecting one public entry point, a portion of the paved walkways as well as some grassy or landscaped areas.

The days of maximum net new shadow on the park due to the 98 Franklin Street Project would occur on June 7 and July 5, when the 98 Franklin Street Project would shade the northern edge of the park starting at 6:52 a.m. and be present for approximately 16 minutes. The duration of 98 Franklin Street Project-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 20 minutes, with an average duration of about 13 minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at 6:46 a.m. on June 14 and 28 and cover 868 sf, equivalent to 13.2 percent of the total area of Page and Laguna Mini Park. Throughout the affected period, the average size of shadows, when present, would be 669 sf (about 10.2 percent of the total park area).

The portions of Page and Laguna Mini Park that would receive net new shadow from the 98 Franklin Street Project would include one public entry point, a portion of the paved walkways, one fixed bench, some grassy or landscaped areas, and a small section of the community garden. Features that would receive new shading that are characterized as being of lower sensitivity because their use is typically transitory in nature include the entry area and walkways. Affected features that could be considered of higher sensitivity include the community garden and the fixed bench. However, shadow cast by the 98 Franklin Street Project would occur in the summer for a short duration (33 minutes or less) and be gone prior to 8 a.m., corresponding to times of typically lower levels of park use. Therefore, impacts on the Page and Laguna Mini Park would be *less than significant*.

PATRICIA'S GREEN (LOCATION 9)

30 Van Ness Avenue Project. The 30 Van Ness Avenue Project would result in net new shadow cast on Patricia's Green, adding approximately 239,936 net new annual sfh of shadow and increasing the sfh of shadow by 0.36 percent annually above current levels. This increase would result in a new annual total shadow load of 18.42 percent. Net new shadow from 30 Van Ness Avenue Project would occur within the first 46 minutes of the daily analysis period between March 16 and May 2 and again between August 10 and September 26. Net new shadow would affect all portions of the park at various times throughout the year.

The days of maximum net new shadow on the park due to 30 Van Ness Avenue Project would occur on April 5 and September 6, when the 30 Van Ness Avenue Project would shade the central and northern portions of the park starting at 7:44 a.m. and be present for approximately 38 minutes. The duration of 30 Van Ness Avenue Project-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 46 minutes with an average duration of about 31 minutes across all affected dates. The largest net new shadow cast by 30 Van Ness Avenue Project would occur at 8:15 a.m. on August 30 and April 12 and cover 10,762 sf, equivalent to 60.1 percent of the total area of Patricia's Green. Throughout the affected period, the average size of shadows, when present, would be 5,286 sf (about 29.5 percent of the total park area).

98 Franklin Street Project. 98 Franklin Street Project would result in net new shadow cast on Patricia's Green, adding approximately 262,065 net new annual sfh of shadow and increasing the sfh of shadow by 0.39 percent annually above current levels. This increase would result in a new annual total shadow load of 18.45 percent. Net new shadow from the 98 Franklin Street Project would occur within the first 46 minutes of the daily analysis period between February 2 and March 28 and again between September 14 and November 7. Net new shadow would affect all portions of the park at various times throughout the year.

The days of maximum net new shadow on the park due to the 98 Franklin Street Project would occur on March 1 and October 11, when the 98 Franklin Street Project would shade the central and northern portions of the park starting at 8:16 a.m. and be present for approximately 36 minutes. The duration of 98 Franklin Street Project-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 46 minutes, with an average duration of about 36 minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at 8:45 a.m. on March 1 and October 11 and cover 10,314 sf, equivalent to 57.6 percent of the total area of Patricia's Green. Throughout the affected period, the average size of shadows, when present, would be 4,458 sf (about 24.9 percent of the total park area).

Conclusions. The portions of Patricia's Green that would likely be most sensitive to the addition of net new shadow would be the children's play area, the park's fixed benches, and the tables and seating areas. All of these features would receive some net new shadow from both the 30 Van Ness Avenue Project and the 98 Franklin Street Project, the presence of which would be noticeable to users of the park. The times for net new shadow would be in the early morning, prior to 9 a.m. The children's play area, which could be the most sensitive to additional shadow, would not receive net new shadow at any point after 8:30 a.m. Therefore, both the 30 Van Ness Avenue Project and the 98 Franklin Street Project would result in *less-than-significant* shadow impacts on Patricia's Green.

CIVIC CENTER PLAZA (LOCATION 13)

30 Van Ness Avenue Project. The proposed 30 Van Ness Avenue Project would also result in net new shadow cast on Civic Center Plaza, but as 30 Van Ness Avenue is the only Hub Plan site which would cast any net new shadow on Civic Center Plaza, the description of the size, amount, timing and locations of shadow under the Hub Plan Scenario is identical to that under the 30 Van Ness Avenue Project Scenario (Impact SH-1). The portions of Civic Center Plaza that would receive net new shadow from the 30 Van Ness Avenue Project include several grassy areas, several paved walkways, and a café kiosk. Features that would receive new shading are characterized as being of lower sensitivity because their use is typically transitory in nature (i.e., walkways and café kiosks) or the features are similar to features in many nearby areas of the park (i.e., grassy areas), which would be unshaded when other areas would be affected by net new shadow from the 30 Van Ness Avenue Project. Therefore, the 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on Civic Center Plaza.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on Civic Center Plaza; therefore, *no impact* would occur.

FUTURE 11TH/NATOMA PARK SITE (LOCATION 14) (PROVIDED FOR INFORMATIONAL PURPOSES)

30 Van Ness Avenue Project. The 30 Van Ness Avenue Project would not generate any net new shadow that would fall on the future 11th/Natoma Park Site.

98 Franklin Street Project. The 98 Franklin Street Project would result in net new shadow cast on the 11th/Natoma Park Site, adding approximately 112,157 net new annual sfh of shadow and increasing the sfh of shadow by 0.15 percent annually above current levels. This increase would result in a new annual total shadow load of 22.24 percent. Net new shadow from the 98 Franklin Street Project would occur in the late afternoon/early evening for up to 33 minutes between May 4 and August 8. Net new shadow would fall only on the southern half of the park.

The day of maximum net new shadow on the park due to 98 Franklin Street would occur on June 21, when the 98 Franklin Street Project would shade the southern half of the park starting just prior to 7 p.m. and be present for approximately 33 minutes. The duration of 98 Franklin Street-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 33 minutes with an average duration of about 26 minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at 7 p.m. on June 21 and cover 4,256 sf, equivalent to 21.7 percent of the total area of the 11th/Natoma Park Site. Throughout the affected period, the average size of shadows, when present, would be 2,613 sf (about 13.3 percent of the total park area).

As the 11th/Natoma Park site is not yet a park and no future programming information has been developed nor approved, the possible features affected and qualitative impacts of project-generated shadow on such features are undetermined and not reviewed.

UNITED NATIONS PLAZA (LOCATION 15)

30 Van Ness Avenue Project. The proposed 30 Van Ness Avenue Project would result in net new shadow cast on United Nations Plaza, adding a small amount of net new shadow that would occur for up to 45 minutes in the late afternoon between late November and mid-January. Net new shadow would fall only on a small northern portion of the plaza, affecting one public entry point and a BART/Muni access stair. The days of maximum net new shadow on the park due to 30 Van Ness Avenue would occur around December 21, when the 30 Van Ness Avenue Project would shade the northern corner of the plaza starting after 3 p.m. and be present for approximately 30 minutes. The largest net new shadow cast by 30 Van Ness Avenue would occur in the late afternoon and would cover less than 5 percent of the total area of United Nations Plaza.

The portions of United Nations Plaza that would receive net new shadow from the 30 Van Ness Avenue Project include a plaza point of entry and a BART/Muni access stair. Therefore, features

that would receive new shading are characterized as being of lower sensitivity because their use is typically transitory in nature. Therefore, the 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on United Nations Plaza.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on United Nations Plaza; therefore, *no impact* would occur.

HOWARD AND LANGTON MINI PARK (LOCATION 16)

30 Van Ness Avenue Project. The 30 Van Ness Avenue Project would result in net new shadow cast on Howard and Langton Mini Park, adding approximately 1,584 net new annual sfh of shadow and increasing the sfh of shadow by 0.004 percent annually above current levels. This increase would result in a new annual total shadow load of 41.029 percent. Net new shadow from 30 Van Ness Avenue would occur for up to seven minutes in the late afternoon between approximately March 9 and 21 and again between September 21 and October 3. Net new shadow would fall only on a small portion of the northern corner of the park, affecting the public entry gate and part of the community garden.

The days of maximum net new shadow on the park due to 30 Van Ness Avenue would occur on March 15 and September 27, when the 30 Van Ness Avenue Project would shade the northern corner of the park starting at approximately 5:51 p.m. and be present for approximately seven minutes (until the end of the daily analysis period). The duration of 30 Van Ness Avenue-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and seven minutes. The largest net new shadow cast by 30 Van Ness Avenue would occur at 5:58 p.m. on March 15 and September 27 and cover 1,067 sf, equivalent to 10.4 percent of the total area of Howard and Langton Mini Park. Throughout the affected period, the average size of shadows, when present, would be 1,067 sf (about 10.4 percent of the total park area).

The portions of Howard and Langton Mini Park that would receive net new shadow from the 30 Van Ness Avenue Project would include the public point of entry and portions of the community garden. Although some users of the community garden may notice the presence of a small amount of net new shadow if they were to be present during the affected period, the short duration and limited number of dates annually of net new shadow would be unlikely to affect the use and enjoyment of the park or make any impact on plant health and growth. Therefore, the 30 Van Ness Avenue Project would result in *less-than-significant* shadow impacts on Howard and Langton Mini Park.

98 Franklin Street Project. The 98 Franklin Street Project would not generate any net new shadow that would fall on Howard and Langton Mini Park; therefore, *no impact* would occur.

PUBLIC STREETS AND SIDEWALKS

The 30 Van Ness Avenue Project and the 98 Franklin Street Project would increase shadows on public streets and sidewalks due to the proposed building heights. Although implementation of

both projects would add net new shadows, these shadows would be transitory in nature and would not substantially affect the use of the streets and sidewalks. As shown in **Figures 3.F-14 through 3.4-22** (pp. 3.F-31 through 3.F-39), the overall increase in shading in the vicinity would not represent a substantial change, particularly during midday hours when more people are likely to be using sidewalks for leisure activities, as opposed to simply walking to and from work. The 30 Van Ness Avenue Project and the 98 Franklin Street Project would not increase shadows above levels that are common and generally expected in a densely developed urban environment. Therefore, shadow impacts on public streets and sidewalks would be *less than significant*.

CONCLUSIONS

30 Van Ness Avenue Project. As described above, the Van Ness Avenue Project would generate net new shadow on nearby open spaces, public streets, and sidewalks. In total, eight existing parks would result in increased shadow impacts from the 30 Van Ness Avenue Project. For the reasons discussed above, the RPD parks and open spaces were evaluated quantitatively and for all other parks, a qualitative analysis was provided. The annual increase in new shadow on existing parks and open spaces would range from 0.0002 percent (Jefferson Square Park) to 0.36 percent (Patricia's Green) throughout the year, with the number of days of increased shadow ranging from approximately 16 to 96 days per year. Net shadow impacts would be *less than significant* or *no impact* for all parks, public streets, and sidewalks.

98 Franklin Street Project. The 98 Franklin Street Project would result in net new shadow cast on the Page and Laguna Mini Park, Patricia's Green, the proposed 11th/Natoma Park Site, and public streets and sidewalks. However, as discussed above, the net new shadows cast would be *less than significant*. The 98 Franklin Street Project would not impact other parks in the area.

CUMULATIVE IMPACTS

As discussed above, the Cumulative Scenario assumes all Hub Plan sites reflect the maximum proposed heights under the Hub Plan plus a 20-foot-tall mechanical parapet allowance. For the 10 South Van Ness Avenue Project, the 590-foot-tall project variant is studied under existing conditions as well as cumulative.²⁴ In addition to the Hub Plan sites, the 30 Van Ness Avenue Project, and the 98 Franklin Street Project, other reasonably foreseeable projects that would cast shadow on publicly accessible open spaces affected by the Hub Plan have been additionally included to analyze the total cumulative net new shadow. A complete list of cumulative projects is included in Appendix H-1 (Shadow Study).

²⁴ For informational purposes, the 400-foot-tall double tower project variant is analyzed under a Cumulative Scenario 2 in the Shadow Study (Appendix H-1).

The below cumulative analysis considers all parks and open spaces that could be affected by cumulative development. For each, three Cumulative Scenarios are addressed: the Hub Plan plus cumulative projects (under Impact C-SH-1), the 30 Van Ness Avenue Project plus cumulative projects (under Impact C-SH-2), and the 98 Franklin Street Project plus cumulative projects (under Impact C-SH-2).

Table 3.F-3 and **Figures 3.F-5 through 3.F-13**, pp. 3.F-22 through 3.F-30, depict the net new shadow from cumulative projects.

Impact C-SH-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts. (Significant and Unavoidable)

The following parks and open spaces, as analyzed above under Impact SH-1, would not be affected by any net new shadow under the Cumulative Scenario because no other reasonably foreseeable projects would shadow these open space areas in combination with shadowing from the Hub Plan: Margaret Hayward Playground, Buchanan Street Mall, Ella Hill Hutch Center, Hayes Valley Playground, Koshland Community Park, John Muir Elementary School, Page and Laguna Mini Park, and United Nations Plaza. Therefore, as shown in **Table 3.F-3** there would be no cumulative shadow impact related to these parks, and no further analysis is required. In addition, no other reasonably foreseeable projects, in combination with the Hub Plan, would shade the future Brady Park and the future 11th/Natoma Park; therefore, these parks are also not discussed further.

As shown in **Table 3.F-3**, the following parks, as well as streets and sidewalks, would experience shadowing from cumulative projects in combination with shadowing from the Hub Plan: Jefferson Square Park, Patricia's Green, McCoppin Hub, Civic Center Plaza, Howard & Langton Mini Park, Gene Friend Recreation Center, Victoria Manalo Draves Park, SoMa West Skate and Dog Park, and public streets and sidewalks. Therefore, the cumulative shadow impact as it relates to additional shadowing on these eight parks, public streets, and sidewalks would be significant. The contribution to these cumulative shadow impacts from the Hub Plan are discussed further below.

TABLE 3.F-3. SHADOW IMPACT SUMMARY – CUMULATIVE IMPACTS

Park/Open Space (Jurisdiction)	Existing Jurisdiction	Existing Shadow	Cumulative		CEQA Conclusion		
			% Increase	Timing	Hub Plan Contribution	30 Van Ness Avenue Contribution	98 Franklin Street Contribution
Jefferson Square Park	RPD	1.34%	0.64%	Year-round AM (365 days)	Not Cumulatively Considerable	Not Cumulatively Considerable	No Contribution
Margaret Hayward Playground	RPD	14.65%	0.09%	Winter AM (72–84 days)	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Buchanan Street Mall	RPD	26.13%	0.01%	Fall/Winter AM (142–154 days)	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Ella Hill Hutch Community Center	SFRED	n/a	n/a	Fall/Winter AM	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Hayes Valley Playground	RPD	33.29%	0.07%	Fall/Spring AM (98–110 days)	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Koshland Community Park	RPD	15.45%	0.32%	Spring/Summer AM (113-125 days)	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
John Muir Elementary School	SFUSD	n/a	n/a	Spring/Summer AM	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Page & Laguna Mini Park	RPD	50.80%	0.29%	Spr/Sum/Fall AM (57–69 days)	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Patricia’s Green	RPD	18.06%	1.99%	Fall/Win/Spr AM/PM (254-266 days)	Cumulatively Considerable	Not Cumulatively Considerable	Not Cumulatively Considerable
McCoppin Hub	PW	n/a	n/a	Spr/Sum/Fall AM/PM	Cumulatively Considerable	No Contribution	No Contribution
SoMa West Skate and Dog Park	PW	n/a	n/a	Summer AM	Not Cumulatively Considerable	No Contribution	No Contribution
Future Brady Park (Proposed)	POPOS	n/a	n/a	Spr/Sum/Fall AM/PM	--	--	--

TABLE 3.F-3. SHADOW IMPACT SUMMARY – CUMULATIVE IMPACTS

Park/Open Space (Jurisdiction)	Existing Jurisdiction	Existing Shadow	Cumulative		CEQA Conclusion		
			% Increase	Timing	Hub Plan Contribution	30 Van Ness Avenue Contribution	98 Franklin Street Contribution
Civic Center Plaza	RPD	10.20%	0.03%	Fall/Winter AM/PM (100–112 days)	Not Cumulatively Considerable	Not Cumulatively Considerable	No Contribution
Future 11 th /Natoma Park (Proposed)	RPD	22.09%	6.77%	Year-Round PM (365 days)	--	--	--
United Nations Plaza	PW	n/a	0.01%	Winter PM	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact
Howard & Langton Mini Park	RPD	41.03%	0.054%	Fall/Spring PM (84–96 days)	Cumulatively Considerable	Not Cumulatively Considerable	No Contribution
Gene Friend Recreation Center	RPD	48.29%	1.32%	Year-round AM/PM (295–307 days)	Not Cumulatively Considerable	No Contribution	No Contribution
Victoria Manalo Draves Park	RPD	6.43%	0.51%	Year-round AM/PM (365 days)	Not Cumulatively Considerable	No Contribution	No Contribution

Source: Prevision Design, 2019.

Notes:

RPD = San Francisco Recreation and Parks Department

SFRED = City and County of San Francisco Real Estate Division

SFUSD = San Francisco Unified School District

POPOS = privately owned public open space

PW = San Francisco Public Works

JEFFERSON SQUARE PARK (LOCATION 1)

Cumulative net new shadow combined with the other planned projects in the vicinity would result in an increase of 0.6403 percent (5,856,508 sfh) of shadow on Jefferson Square Park, compared with an increase of 0.0002 percent (2,001 sfh) under either the Hub Plan Scenario.²⁵

Under the Cumulative Scenario, additional morning shadows would also fall on the eastern half of Jefferson Square Park, year-round, affecting a point of entry, walkways, some landscaped areas, portions of the grassy areas, and three fixed benches.

The new shadows cast by the Hub Plan would fall on areas that are either transitional in nature (i.e., paved walkways, entrances) or areas with a relatively low intensity of use (i.e., grassy areas). However, under the Cumulative Scenario, the park features that would be most sensitive to the addition of shading, the three fixed benches, would be shaded. However, two of the three benches would be affected prior to 7 a.m., and the other would be shaded no later than 9 a.m.

The Hub Plan (because of the 30 Van Ness Avenue Project) would contribute 0.0002 percent of the 0.6403 percent of cumulative net new shadow for up to eight minutes per day. Therefore, the Hub Plan's minor contribution to cumulative net new shadow *would not be cumulatively considerable*.

PATRICIA'S GREEN (LOCATION 9)

Net new shadow from the Cumulative Scenario would result in an increase of 1.99 percent (1,326,021 sfh) of shadow on Patricia's Green. This increase would result in a new annual total shadow load of 20.05 percent. Net new shadow from the Cumulative Scenario would occur within the first 160 minutes of the daily analysis period and again (at times) within the last 54 minutes of the daily analysis period between approximately August 10 and May 2. Net new shadow would affect all portions of the park at various times throughout the year.

The days of maximum net new shadow on the Patricia's Green due to the Cumulative Scenario would occur on March 8 and October 4, when the Cumulative Scenario would shade the majority of the park starting at 8:09 a.m. and be present for approximately 120 minutes. The duration of Cumulative Scenario-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 214 minutes with an average duration of about 127 minutes across all affected dates.

The largest net new shadow cast by the Cumulative Scenario would occur at 8:45 a.m. on March 1 and October 11 and cover 15,404 sf, equivalent to 86.0 percent of the total area of

²⁵ As discussed above (Impact SH-1), the 30 Van Ness Avenue Project is the only Hub Plan site that would cast net new shadow on Jefferson Square Park. Therefore, the size, amount, timing, and locations of shadow under the Hub Plan Scenario are identical to that under the 30 Van Ness Avenue Project.

Patricia's Green. Throughout the affected period the average size of shadows, when present, would be 2,496 sf (about 13.9 percent of the total park area).

Portions of Patricia's Green would receive net new shadow from the Hub Plan, as well as the Cumulative Scenario. The portions of Patricia's Green that would likely be most sensitive to the addition of net new shadow would be the children's play area, the park's fixed benches, and the tables and seating areas. All of these features would receive some net new shadow from the Hub Plan and the Cumulative Scenario, the presence of which would be noticeable to users of the park present at that time. The times for net new shadow under the Hub Plan would be in the early morning, prior to 9 a.m., when lower overall levels of use are typical. The children's play area, which could be the most sensitive to additional shadow, would not receive net new shadow after 8:30 a.m.

With additional foreseeable projects, the Cumulative Scenario would generate additional shadows that would also fall on Patricia's Green both in the morning and afternoon periods, affecting similar park areas from late summer through late spring. Areas additionally affected would be within the southern half of the park, and would include walkways, grassy areas, the children's play area, and fixed benches.

The Hub Plan would contribute 1.53 percent of the 1.99 percent of cumulative net new shadow for up to two hours per day. Therefore, the Hub Plan's contribution would be *cumulatively considerable*.

McCOPPIN HUB (LOCATION 10)

Because McCoppin Hub is not under the jurisdiction of RPD, this analysis qualitatively discusses the general timing of net new shadow effects. In the Cumulative Scenario, net new shadow on McCoppin Hub would be similar to shadow under the Hub Plan scenario, with the exception of an additional small amount of net new shadow that would be cast by the 1270 Market Street Project in the late afternoon over a few dates in mid-March and late September. Under the Cumulative Scenario, there would be a small amount of additional net shadow cast on McCoppin Hub, affecting a small area on the eastern edge of the park for a short duration in the late afternoon near the equinoxes. Cumulative shadows would affect a portion of the stairs and ramp walkways and would not impact any fixed seating areas. However, because the Hub Plan would result in the majority of total new cumulative shadowing on McCoppin Hub, this contribution is considered *cumulatively considerable*.

SOMA WEST SKATE AND DOG PARK (LOCATION 11)

In the Cumulative Scenario, net new shadow would be similar to shadow under the Hub Plan scenario, with the exception of an additional small amount of net new shadow that would be cast by the 198 Valencia Street Project in the mid- to late-afternoon between mid-August and early May. At the dog park, affected areas sensitive to new shading that would receive new shadow from the Cumulative Scenario would be the grassy dog play areas and two fixed benches. In the

skate park, the concrete ramp area would receive new shadow; however, these users would likely be less affected due to the small relative amount of new shadow and the fact that the space is already significantly shaded due to the freeway overhead.

The Hub Plan would contribute slightly to cumulative net new shadow impacts. The areas of net new shadow from the Hub Plan, as well as the 198 Valencia Street Project, would not be noticeable to users of the park during affected times; the park is already in shadow because of its location directly under an elevated freeway. Therefore, the Hub Plan's contribution *would not be cumulatively considerable*.

CIVIC CENTER PLAZA (LOCATION 13)

The Cumulative Scenario would result in net new shadow cast on Civic Center Plaza, adding approximately 282,928 net new annual sfh of shadow and increasing the sfh of shadow by 0.03 percent annually above current levels.²⁶ This increase would result in a new annual total shadow load of 10.23 percent. Net new shadow from the Cumulative Scenario would occur for up to 170 minutes a day over three periods in the early morning, mid-, and late afternoon/evening between approximately October 26 and February 14. Net new shadow would fall only along the southern half of the park, affecting several grassy areas, several paved walkways, as well a portion of one of the two children's play areas.

The days of maximum net new shadow on the park due to the Cumulative Scenario would occur on December 20 and 21 on the southern half of the park over three periods: starting at 8:19 a.m. through just after 9 a.m., between just before 1 p.m. through just after 2:15 p.m. and just before 3:30 p.m. though the end of the daily analysis period at 3:54 p.m. The duration of Cumulative Scenario-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 170 minutes with an average duration of about 78 minutes across all affected dates.

The largest net new shadow cast by the Cumulative Scenario would occur at 8:30 a.m. on December 20 and 21 and cover 8,504 sf, equivalent to 3.8 percent of the total area of Civic Center Plaza. Throughout the affected period, the average size of shadows, when present, would be 2,266 sf (about 1.0 percent of the total park area).

The portions of Civic Center Plaza that would receive net new shadow from the Hub Plan and the Cumulative Scenario include several grassy areas, several paved walkways as well a portion of the southern children's play area, and a café kiosk. The children's play area would be considered a feature more sensitive to additional shadow and for approximately 30 minutes in the late afternoon the Cumulative Scenario would cast shadow over up to half of the playground's

²⁶ As discussed above, the 30 Van Ness Avenue Project is the only Hub Plan site that would cast net new shadow on Civic Center Plaza. Therefore, the size, amount, timing, and locations of shadow under the Hub Plan Scenario are identical to that under the 30 Van Ness Avenue Project.

area. Other features receiving new shading could be characterized as being of lower sensitivity due to the fact their use is either typically transitory in nature (walkways) or are features that are similar to many other nearby areas in the park (grassy areas) that would be unshaded at the times affected by net new shadow from the Hub Plan.

Under the Cumulative Scenario, other foreseeable project would add additional early morning, as well as late afternoon, winter shadow would also fall on the southern half of the park. Cumulative shadow would affect several grassy areas, paved walkways, a portion of the café kiosk eating area, and approximately the southern two-thirds of the southern children's play area. On the winter solstice (December 20), net new cumulative shadow would be present on the café kiosk eating area for a few minutes around 9 a.m., and on the play area for a few minutes prior to 9 a.m. and again starting around 3:40 p.m. and be lasting through the end of the analysis period at 3:54 p.m. (approximately 15 minutes).

The Hub Plan (due to the 30 Van Ness Avenue Project) would contribute 0.004 percent of the 0.03 percent of cumulative net new shadow for up to 90 minutes per day. Therefore, the Hub Plan's contribution *would not be cumulatively considerable*.

HOWARD & LANGTON MINI PARK (LOCATION 16)

The Cumulative Scenario would result in net new shadow cast on the Howard and Langton Mini Park, adding approximately 20,590 net new annual sfh of shadow and increasing the sfh of shadow by 0.054 percent annually above current levels. This increase would result in a new annual total shadow load of 41.079 percent. Net new shadow from the Hub Plan would occur for up to 17 minutes a day in the late afternoon between February 16 and April 4 and again between September 7 and October 24. Net new shadow would be cast over a small northern section of the park.

The days of maximum net new shadow on the park due to the Cumulative Scenario would occur on March 8 and October 4 for about 15 minutes near 5:30 p.m. The duration of Cumulative Scenario-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 17 minutes with an average duration of about 13 minutes across all dates. The largest net new shadow cast by the Cumulative Scenario would occur at 6:09 p.m. on September 20 and March 22 and cover 1,856 sf, equivalent to 18.2 percent of the total area of the Howard and Langton Mini Park. Throughout the affected period, the average size of shadows, when present, would be 1,210 sf (about 11.8 percent of the total park area).

The portions of Howard and Langton Mini Park that would receive net new shadow from the Hub Plan, and under the Cumulative Scenario, would include the public point of entry and portions of the community garden. Although some users of the community garden may notice the presence of a small amount of net new shadow if they were to be present during the affected period, the short duration and limited number of dates annually of net new shadow would be unlikely to affect the use and enjoyment of the park or make any impact on plant health and

growth. Under the Cumulative Scenario, additional late afternoon shadows would fall on a small northern section of the park from mid-winter through mid-spring and again in the fall, affecting a small portion of the community garden area.

The Hub Plan would contribute 0.034 percent of the 0.054 percent cumulative net new shadow, which equates to approximately 63 percent of the total net new shadow. Therefore, the Hub Plan's contribution would be *cumulatively considerable*.

GENE FRIEND RECREATION CENTER (LOCATION 17)

Cumulative net new shadow from the Hub Plan combined with the other planned projects in the vicinity would result in an increase of 1.324 percent (2,185,557 sfh) of shadow on the Gene Friend Recreation Center. This increase would result in a new annual total shadow load of 49.6175 percent. Net new shadow from the Cumulative Scenario would occur for up to 230 minutes a day in the early morning as well as the late afternoon between January 19 and November 21.

The days of maximum net new shadow on the park due to the Cumulative Scenario would occur on May 17 and July 26 when morning shadow would be cast starting at 7:07 a.m. through just after 9 a.m. and again starting just prior to 6 p.m. through the end of the daily analysis period at 7:25 p.m. The duration of the Cumulative Scenario-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 230 minutes with an average duration of about 116 minutes across all affected dates. The largest net new shadow cast by the Cumulative Scenario would occur at 7:57 a.m. on September 20 and March 22 and cover 17,533 sf, equivalent to 39.5 percent of the total area of Gene Friend Recreation Center. Throughout the affected period, the average size of shadows, when present, would be 4,286 sf (about 9.7 percent of the total park area).

The portions of Gene Friend Recreation Center that would receive net new shadow from the Hub Plan would include a small portion of the basketball court. Under the Cumulative Scenario, although more of the park's area and features would be shaded, shading would occur during early morning hours, prior to the opening of the park.

The Hub Plan would contribute 0.0004 percent of the 1.324 percent of cumulative net new shadow for up to six minutes per day. Therefore, the Hub Plan's contribution *would not be cumulatively considerable*.

VICTORIA MANALO DRAVES PARK (LOCATION 18)

Cumulative net new shadow from the Cumulative Scenario combined with the other planned projects in the vicinity would result in an increase of 0.51 percent (2,078,646 sfh) of shadow on Victoria Manalo Draves Park. This increase would result in a new annual total shadow load of 6.94 percent. Net new shadow from the Cumulative Scenario would occur for between 34 and 118 minutes a day in the early morning as well as the late afternoon year-round.

The day of maximum net new shadow on the park due to the Cumulative Scenario would occur on June 21, when morning shadow would be cast starting just prior to 5:45 p.m. though the end of the daily analysis period at 7:36 p.m. The duration of Cumulative Scenario-generated net new shadow would vary throughout the year, with net new shadow lasting between 34 and 118 minutes, with an average duration of about 74 minutes across all affected dates. The largest net new shadow cast by the Cumulative Scenario would occur at 7:36 p.m. on June 7 and July 5 and cover 22,158 sf, equivalent to 20.1 percent of the total area of Victoria Manalo Draves Park. Throughout the year, the average size of shadows, when present, would be 4,966 sf (about 4.5 percent of the total park area).

Under the Cumulative Scenario, additional mid-spring and late summer shadow would fall on Victoria Manalo Draves Park in the morning and shadows would also fall year-round in late afternoon. Areas affected by this shadow include the main park entry, portions of the basketball court, walkways, grassy areas, a small portion of the children's play area, seven fixed benches and one picnic table. Net new cumulative shadow would occur for up to one hour and 45 minutes in the early morning and up to one hour and 45 minutes the late afternoon year-round.

The Hub Plan would contribute 0.01 percent of the 0.51 percent of cumulative net new shadow for up to nine minutes per day. Therefore, the Hub Plan's contribution *would not be cumulatively considerable*.

PUBLIC STREETS AND SIDEWALKS

Sidewalks in the Hub Plan area are already shadowed in the morning and afternoon by densely developed, multistory buildings. Although implementation of the Hub Plan and nearby cumulative development projects would add net new shadow to the streets and sidewalks in the area, these shadows would be transitory in nature, would not substantially affect the use of the streets and sidewalks, and would not increase shadows above levels that are common and generally expected in a densely developed urban environment. The Hub Plan would not combine with past, present, and reasonably foreseeable future projects in the Hub Plan area to create a significant cumulative shadow impact on streets and sidewalks. The contribution from the Hub Plan *would not be cumulatively considerable*.

CONCLUSIONS

As discussed above, the Hub Plan would contribute to a significant cumulative impact on several parks. For most parks where there would be a contribution, the Hub Plan would not result in a cumulatively considerable impact. However, the Hub Plan would make a cumulatively considerable contribution to the shadow on Patricia's Green, McCoppin Hub, and Howard and Langton Mini Park, resulting in a *significant* impact.

Mitigation Measures

There are no feasible mitigation measures that would reduce shadow impacts from the Hub Plan on Patricia's Green, McCoppin Hub, and Howard and Langton Mini Park.

Significance After Mitigation

Because no mitigation measures would reduce these cumulatively considerable contributions to a less-than-significant level, the cumulative impact on these parks would be *significant and unavoidable*.

Impact C-SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in cumulatively considerable shadow impacts. (Less than Significant)

The following parks and open spaces, as analyzed in Impact SH-2, above, would not be affected by any net new shadow under the Cumulative Scenario because no other reasonably foreseeable projects would shadow these open space areas in combination with shadowing from the 30 Van Ness Avenue Project and the 98 Franklin Street Project: Margaret Hayward Playground, Buchanan Street Mall, Ella Hill Hutch Center, Hayes Valley Playground, Koshland Community Park, John Muir Elementary School, Page and Laguna Mini Park, McCoppin Hub, SoMa West Skate and Dog Park, the future Brady Park, the future 11th/Natoma Park, United Nations Plaza, Gene Friend Recreation Center, and Victoria Manalo Draves Park. Therefore, there would be *no cumulative shadow impact* related to these parks, and no further analysis is required.

As shown in **Table 3.F-3**, p. 3.F-73, the 30 Van Ness Avenue Project would contribute to a cumulative shadow impact on Jefferson Park Square, Patricia's Green, Civic Center Plaza, Howard and Langton Mini Park, and public streets and sidewalks. The 98 Franklin Street Project would contribute to cumulative shadow impacts at Patricia's Green and to public streets and sidewalks. The contribution to these cumulative shadow impacts from the 30 Van Ness Avenue Project and the 98 Franklin Street Project are discussed further below.

JEFFERSON SQUARE PARK (LOCATION 1)

30 Van Ness Avenue Project. As discussed above, the 30 Van Ness Avenue Project is the only Hub Plan site that would cast net new shadow on Jefferson Square Park. Therefore, the size, amount, timing, and locations of shadow under the 30 Van Ness Avenue Project are identical to that under the Hub Plan Scenario. Refer to Impact C-SH-1, above, for the full analysis. The 30 Van Ness Avenue Project would contribute 0.0002 percent of the 0.6403 percent of cumulative net new shadow for up to eight minutes per day. Therefore, the 30 Van Ness Avenue Project's contribution *would not be cumulatively considerable*.

98 Franklin Street Project. The 98 Franklin Street Project would not cast any shadow on Jefferson Square Park and, thus, would *not contribute* to cumulative shadow impacts at this location.

PATRICIA'S GREEN (LOCATION 9)

As explained above under Impact C-SH-1, net new shadow from the Cumulative Scenario would result in an increase of 1.99 percent (1,326,021 sfh) of shadow on Patricia's Green. This increase would result in a new annual total shadow load of 20.05 percent. Net new shadow from the Cumulative Scenario would occur within the first 160 minutes of the daily analysis period and again (at times) within the last 54 minutes of the daily analysis period between approximately August 10 and May 2. Net new shadow would affect all portions of the park at various times throughout the year. The portions of Patricia's Green that would likely be most sensitive to the addition of net new shadow would be the children's play area, the park's fixed benches, and the tables and seating areas.

30 Van Ness Avenue Project. Portions of Patricia's Green would receive net new shadow from the 30 Van Ness Avenue Project as well as the Cumulative Scenario. The times for net new shadow under the 30 Van Ness Avenue Project would be in the early morning, prior to 9 a.m. The children's play area, which could be the most sensitive to additional shadow, would not receive net new shadow at any point after 8:30 a.m. The 30 Van Ness Avenue Project would contribute 0.36 percent of the 1.99 percent of cumulative net new shadow for up to 46 minutes per day. Therefore, the 30 Van Ness Avenue Project's contribution *would not be cumulatively considerable*.

98 Franklin Street Project. Portions of Patricia's Green would receive net new shadow from the 98 Franklin Street Project, as well as the Cumulative Scenario. The time for net new shadow under the 98 Franklin Street Project would be in the early morning, prior to 9 a.m. The children's play area, which could be the most sensitive to additional shadow, would not receive net new shadow at any point after 8:30 a.m. The 98 Franklin Street Project would contribute 0.39 percent of the 1.99 percent of cumulative net new shadow for up to 46 minutes per day. Therefore, the 98 Franklin Street Project's contribution *would not be cumulatively considerable*.

CIVIC CENTER PLAZA (LOCATION 13)

30 Van Ness Avenue Project. As discussed above, the 30 Van Ness Avenue Project is the only Hub Plan site that would cast net new shadow on Civic Center Plaza. Therefore, the size, amount, timing, and locations of shadow under the Hub Plan Scenario are identical to that under the 30 Van Ness Avenue Project. Refer to Impact C-SH-1, above, for the full analysis. As with the Hub Plan, the 30 Van Ness Avenue Project would contribute 0.004 percent of the 0.03

percent of cumulative net new shadow for up to 90 minutes per day. Therefore, the 30 Van Ness Avenue Project's contribution *would not be cumulatively considerable*.²⁷

98 Franklin Street Project. The 98 Franklin Street Project would *not contribute* to cumulative shadow impacts on Civic Center Plaza.

HOWARD & LANGTON MINI PARK (LOCATION 16)

30 Van Ness Avenue Project. As explained above under Impact C-SH-1, the Cumulative Scenario would result in net new shadow cast on the Howard and Langton Mini Park, adding approximately 20,590 net new annual sfh of shadow and increasing the sfh of shadow by 0.054 percent annually above current levels. This increase would result in a new annual total shadow load of 41.079 percent. The portions of Howard and Langton Mini Park that would receive net new shadow from the 30 Van Ness Avenue Project, and under the Cumulative Scenario, would include the public point of entry and portions of the community garden. Under the Cumulative Scenario, additional late afternoon shadows would fall on a small northern section of the park from mid-winter through mid-spring and again in the fall, affecting a small portion of the community garden area. The 30 Van Ness Avenue Project would contribute to the cumulative shadow impacts. However, the contribution would be 0.004 percent of the cumulative net new shadow. Therefore, the 30 Van Ness Avenue Project's contribution *would not be cumulatively considerable*.

98 Franklin Street Project. The 98 Franklin Street Project *would not contribute* to cumulative shadow impacts on the Howard and Langton Mini Park.

PUBLIC STREETS AND SIDEWALKS

Sidewalks in the Hub Plan area are already shadowed in the morning and afternoon by densely developed, multistory buildings. Although implementation of the 30 Van Ness Avenue Project and the 98 Franklin Street Project, as well as nearby cumulative development projects, would add net new shadow to the streets and sidewalks in the area, these shadows would be transitory in nature, would not substantially affect the use of the streets and sidewalks, and would not increase shadows above levels that are common and generally expected in a densely developed urban environment. The 30 Van Ness Avenue Project and the 98 Franklin Street Project would not combine with past, present, and reasonably foreseeable future projects in the Hub Plan area to create a significant cumulative shadow impact on streets and sidewalks. The contribution from

²⁷ Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in shadow effects of the revised 30 Van Ness Avenue Project on Civic Center Plaza relative to the prior version of the 30 Van Ness Avenue Project analyzed in the Shadow analysis report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD) EIR (February 11, 2019)." February 2019.

the 30 Van Ness Avenue Project and the 98 Franklin Street Project *would not be cumulatively considerable*.

CONCLUSIONS

As discussed above, the 30 Van Ness Avenue Project and the 98 Franklin Street Project would not result in a cumulative contribution to most parks in the area. However, the 30 Van Ness Avenue Project would contribute to a cumulative shadow impact on Jefferson Park Square, Patricia's Green, Civic Center Plaza, Howard and Langton Mini Park, and public streets and sidewalks. The 98 Franklin Street Project would contribute to a cumulative shadow impact on Patricia's Green and public streets and sidewalks. However, these contributions would not be cumulatively considerable. The impacts from the 30 Van Ness Avenue Project and the 98 Franklin Street Project, along with other reasonably foreseeable projects, would be *less than significant*.

4. OTHER CEQA CONSIDERATIONS

The California Environmental Quality Act (CEQA) Guidelines section 15126 requires that all aspects of a project must be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the environmental impact report (EIR) must also identify (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, (4) growth-inducing impacts of the proposed project, (5) mitigation measures proposed to minimize the significant effects, and (6) alternatives to the proposed project.¹

A. SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

The Summary chapter and Sections 3.A through 3.F of this EIR provide a comprehensive summary of the environmental effects of the Hub Plan,² the two individual development projects, streetscape and street network improvements, and the Hub Housing Sustainability District (HSD), including the levels of significance both before and after mitigation. **Table S-1**, p. S-12, and **Table S-2**, p. S-58, summarize the impacts identified in the EIR and the initial study, respectively (see Summary chapter).

B. SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

CEQA Guidelines section 15126.2(b) requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. Development of the Hub Plan, the two individual development projects, and the Hub HSD would result in the significant and unavoidable project-related and cumulative impacts discussed below and further discussed in Sections 3.A, Cultural Resources; 3.B, Transportation and Circulation; 3.C, Noise and Vibration; 3.D, Air Quality; 3.E, Wind; and 3.F, Shadow.

¹ Mitigation measures proposed to minimize significant effects are discussed in each topical section of the initial study and Chapter 3 of this EIR; alternatives to the proposed project are discussed in Chapter 5, Alternatives.

² The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

CULTURAL RESOURCES

- The Hub Plan could cause a substantial adverse change in the significance of individual built environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code. (Impact CUL-1)
- The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built environment resources. (Impact C-CUL-1)

TRANSPORTATION AND CIRCULATION

- During construction, the Hub Plan would require a substantially extended duration or intense activity, and the secondary effects would create potentially hazardous conditions for people walking, bicycling, or driving; or interfere with accessibility for people walking or bicycling; or substantially delay public transit. (Impact TR-1)
- The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking. (Impact TR-8)
- The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts. (Impact C-TR-1)
- The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts. (Impact C-TR-7)

NOISE

- During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards. (Impact NOI-1)
- Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards. (Impact C-NOI-1)

AIR QUALITY

- During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. (Impact AQ-5)
- The Hub Plan would result in emissions of fine particulate matter (particulate matter 2.5 microns in diameter or less [PM_{2.5}]) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. (Impact AQ-7)
- The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions. (Impact C-AQ-1)

WIND

- The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts. (Impact C-WI-1)

SHADOW

- The Hub Plan would create new shadow in a manner that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces. (Impact SH-1)
- The Hub Plan, in combination of past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts. (Impact C-SH-1)

C. SIGNIFICANT IRREVERSIBLE CHANGES

In accordance with CEQA section 21100(b)(2)(B) of the CEQA Statute and CEQA Guidelines section 15126.2(c), an EIR must identify any significant irreversible environmental changes that could result from implementation of a proposed project. This may include current or future uses of non-renewable resources, secondary or growth-inducing impacts that commit future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. According to the CEQA Guidelines, irretrievable commitments of resources should be evaluated to ensure that such consumption is justified. In general, irreversible commitments include energy consumed and materials used during construction of a proposed project as well as the energy and natural resources (notably, water) required to sustain the project and its inhabitants or occupants over the usable life of the project.

The consumption of nonrenewable resources includes conversion of agricultural lands and lost access to mining reserves. As discussed in the initial study (Appendix B), the Hub Plan area is urbanized and in an area of San Francisco that is identified by the California Department of Conservation as “Urban and Built-up Land” that does not fall under any of the “Farmland” classifications. Therefore, no existing agricultural lands would be converted to non-agricultural uses. In addition, the Hub Plan area does not contain known mineral resources and does not serve as a mining reserve; therefore, development of the proposed Hub Plan would not result in the loss of access to mining reserves.

No significant environmental damage, such as accidental spills or explosions of hazardous materials, is anticipated with implementation of the proposed plan. Compliance with federal, state, and local regulations would ensure that this potential impact would be reduced to a less-than-significant level.

Subsequent development projects under the proposed Hub Plan and Hub HSD, and the two specific development projects would be required to demonstrate compliance with the performance standards outlined in the Maher Ordinance, including the preparation of a site-specific mitigation plan, subject to review and approval by the San Francisco Department of Public Health. As such, no irreversible changes related to hazardous substances would result from implementation of the proposed plan.

The Hub Plan is a regulatory program. It would result in changes to current zoning controls that are applicable in the Hub Plan area to encourage additional housing, safer and more walkable streets and public spaces, and a range of land uses and services in the neighborhood. Under the proposed zoning, there would be two zoning districts, Downtown General Commercial (C-3-G) and Public (P), and the Van Ness and Market Downtown Residential Special Use District (SUD) would be expanded to encompass the entire Hub Plan area. All sites in the Hub Plan area would continue to be zoned for residential and active commercial uses on the ground floor. In addition, the existing prohibition on certain nonresidential uses above the fourth floor would be eliminated. However, the SUD residential-to-nonresidential ratio would remain. In addition, the proposed zoning under the Hub Plan would allow for additional height at the two major intersections (Market Street and Van Ness Avenue and Mission Street and South Van Ness Avenue), with proposed maximum height limits ranging from 250 to up to 650 feet at these intersections. This proposed zoning would also increase maximum height limits at other select sites throughout the Hub Plan area. Specific changes to height limits under the Hub Plan are shown in **Table 2-1**, p. 2-24. If all of the sites identified in **Table 2-1** were to be developed to the proposed maximum height limit, the changes would result in approximately 8,100 new residential units (approximately 15,700 new residents) compared with existing conditions. This estimate also assumes an extra 15 percent increase in the number of proposed units to account for potential density bonuses allowed by either state or local regulations.

Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. The Hub Plan and Hub HSD themselves would not result in immediate physical changes to the environment and, thus, would not immediately result in physical impacts related to a commitment of nonrenewable resources. However, implementation of subsequent development projects under the Hub Plan and Hub HSD, as well as the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would commit future generations to an irreversible commitment of energy during construction and operations, including energy produced from nonrenewable resources. Such resources would include energy for lighting, heating and cooling buildings, operating automobiles and trucks, and operating computers, appliances, and other equipment in Hub Plan area buildings. Implementation of the Hub Plan and Hub HSD would also require an ongoing commitment of potable water for building occupants and landscaping. The Hub Plan proposes to make improvements to major streets and alleys in the Hub Plan area, with one of the goals being to create a safer transportation experience for everyone. This would promote transit use, walking, and bicycling, thereby reducing transportation-related energy consumption in the Hub Plan area. Future projects would be required to incorporate green building features, consistent with the Green Building Ordinance, to reduce greenhouse gas (GHG) emissions. As discussed in the initial study, the Hub Plan would not result in any significant impacts associated with an increase in GHG emissions or conflict with measures adopted for the purpose of reducing such emissions because it would be compliant with the City and County of San Francisco's (City's) Greenhouse Gas Reduction Strategy. In addition, the Hub Plan would not require the construction of major utility lines to deliver energy or natural gas because these services are already provided in the area.

Regarding the individual development projects, the 30 Van Ness Avenue Project would meet all City requirements, including compliance with GreenPoint or Leadership in Energy and Environmental Design (LEED) Gold standards. The building envelope as well as the heating, ventilation, and air-conditioning systems would be designed and optimized together to improve energy efficiency, thermal comfort, and natural lighting. The proposed project at 98 Franklin Street would either seek LEED certification or meet the applicable GreenPoint requirements, which include measures that would be applicable to both construction and operation of the proposed project. Both of the proposed development projects would be required to include a Transportation Demand Management Program, which would reduce the amount of energy used for transportation in the project area, and incorporate sustainability features, such as stormwater and rainwater collection features or a wastewater treatment system.

Demolition and construction of subsequent development projects in the Hub Plan area and the Hub HSD, as well as the two individual development projects, would also require the consumption of other nonrenewable or slowly renewable resources such as steel, aluminum, other metals, concrete, masonry materials, lumber, sand and gravel, asphalt, other building

materials, and water. Projects under the Hub Plan would irreversibly use water and solid waste landfill resources. Because subsequent development projects under the Hub Plan and Hub HSD, as well as the two individual development projects, would be required to comply with California Code of Regulations title 24, the California Green Building Standards Code, and the City's Green Building Ordinance, future buildings would use less energy and water over their lifetimes than comparable buildings that were not built to the standards. Therefore, subsequent development projects under the Hub Plan and Hub HSD, as well as the two individual development projects, would not use non-renewable resources in an inefficient manner.

D. GROWTH INDUCEMENT

The CEQA Guidelines require that an EIR evaluate the growth-inducing impacts of a proposed action (section 15126.2(d)). A growth-inducing impact is defined in CEQA Guidelines section 15126.2(d) as:

"[T]he ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth ... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involved construction of new housing that would result in new residents moving to the area. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service (e.g., a wastewater treatment facility). Increases in population could strain existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also require analysis of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

As described in the Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, the Hub Plan is a regulatory program. It involves changes to current zoning controls that are applicable to the Hub Plan area as well as height and bulk districts for select sites in the Hub Plan area to incentivize housing. In addition, the Hub HSD would allow for ministerial

approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. The two individual development projects at 30 Van Ness Avenue and 98 Franklin Street are private development projects that include housing, retail, office space, and institutional uses (i.e., the French American International School [FAIS]). The Hub Plan, Hub HSD, and the two individual development projects would induce growth by constructing new housing units. Development under the Hub Plan could result in housing for up to 15,700 new city residents, assuming an occupancy rate of 1.94 people per unit in the proposed 8,100 new units (see Section E.3, Population and Housing, of the initial study, Appendix B). This total includes the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which would result in housing for a combined total of approximately 1,654 residents. The Hub Plan could also result in up to approximately 275 new jobs. Although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) surpasses the total number of jobs for the entire Hub Plan area (275), it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net increase of approximately 275 jobs area-wide. The potential population growth under the Hub Plan represents approximately 7.6 percent of the city's population growth, based on a citywide occupancy rate of 2.23 persons per unit. These people will be residing in the 92,480 new residential units that are anticipated citywide by 2040.³

Although implementation of the Hub Plan would increase development capacity, the Hub Plan's policies and regulations would be within an area of the city (i.e., Market-Octavia/Upper Market) that has been designated a Priority Development Area by the Association of Bay Area Governments (ABAG) in Plan Bay Area.⁴ Likewise, the two individual development projects are within this Priority Development Area. Also, as discussed in Section E.3, Population and Housing, of the initial study (Appendix B), the San Francisco General Plan recommends the Hub Plan area as an appropriate location for high-density housing to help meet the city's short-term and long-term housing goals.

Plan Bay Area is a long-range (i.e., through 2040), integrated transportation and land use/housing strategy for the San Francisco Bay Area. Plan Bay Area provides a strategy for meeting 80 percent of the region's future housing needs in Priority Development Areas. These are locally identified infill development opportunity areas within existing communities that are primed for an environment that is friendly to people walking and people bicycling and served by transit. Plan Bay Area grew out of the California Sustainable Communities and Climate

³ Association of Bay Area Governments and Metropolitan Transportation Commission, *Plan Bay Area*, July 2013, p. 55, http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf, accessed December 5, 2018.

⁴ San Francisco County Transportation Authority, *Priority Development Areas in San Francisco*, https://www.sfcta.org/sites/default/files/content/Programming/OBAG/OBAG_SF_PDAs_031417.pdf, accessed December 5, 2018.

Protection Act of 2008 (Senate Bill 375), which requires each of the state's 18 metropolitan areas, including the Bay Area, to reduce GHG emissions from vehicles, including light trucks. Thus, the Hub Plan seeks to accommodate future housing growth, as well as uses that accommodate residential and employment uses, in a part of San Francisco that is accessible to regional transit (Bay Area Rapid Transit, San Francisco Municipal Railway, and bus) and adjacent to existing job centers in downtown and along Van Ness Avenue.

Population and employment growth in San Francisco has been anticipated by the City, based on projections contained within and consistent with Plan Bay Area. The Hub Plan implements the growth that is already anticipated in ABAG projections. The two individual development projects at 30 Van Ness Avenue and 98 Franklin Street are also aligned with the strategies included in Plan Bay Area. These projects would add housing and accommodate uses in the Hub Plan area. The overarching objectives of the Hub Plan are to encourage housing, including affordable housing; create safer and more walkable streets, as well as welcoming and active public spaces; increase transportation options; and create a neighborhood with a range of uses and services to meet neighborhood needs. The Hub Plan would achieve this through changes to height and bulk districts for select sites to allow more housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically, office, institutional, art, and public uses. The Hub HSD would complement these goals by allowing for faster approval of qualified housing projects. Although adoption and implementation of the Hub Plan and Hub HSD could remove some impediments to the future population and employment growth forecast for San Francisco, the City has already planned for this growth. Furthermore, the Hub Plan would accommodate this growth in a more sustainable way (i.e., near transit) compared with the possibility of diverting housing and employment growth to outlying portions of the Bay Area with lower density and less access to local and regional transit.

Plan Bay Area declares that in order to meet the Bay Area's GHG emissions reduction and housing targets and make progress toward meeting other adopted performance targets, future job and population growth should occur in established communities with access to existing or planned transportation investments. The Hub Plan and Hub HSD, as well the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, encourage city-centered growth in a transit-rich area. Therefore, the Hub Plan, Hub HSD, and the two individual development projects are consistent with Plan Bay Area objectives to direct growth in Priority Development Areas, which will reduce GHG emissions from otherwise-expected growth.

The physical environmental effects from implementing the objectives and policies of the Hub Plan and Hub HSD, as well as those of the two individual development projects, including proposed changes to bulk and height limits and land use, are described in the initial study and Chapter 3, Environmental Setting, Impacts, and Mitigation Measures.

E. AREAS OF KNOWN CONTROVERSY AND ISSUES TO BE RESOLVED

The public has expressed some concerns about the Hub Plan, the two individual development projects, and the Hub HSD that are related to the environmental topics reviewed in this EIR and initial study. The public comments are in response to the notice of availability of the NOP for an EIR and the Notice of Public Scoping Meeting for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub HSD that the San Francisco Planning Department issued on May 23, 2018. Notices were mailed to other City departments, neighborhood groups, other public agencies, and interested parties to announce a meeting where the public could comment on the scope of this EIR's environmental analysis. The meeting was held within the Hub Plan area on June 12 from 6 until 8 p.m. at 170 Otis Street, First Floor, Born Auditorium. Two members of the public made oral comments, which have been documented and addressed in the applicable sections of the EIR or initial study. Written comments on the NOP were accepted during a 30-day period from May 23 until June 22, 2018; a total of five comment letters were received. The NOP and comments received on the NOP are included in Appendix A.

Potential areas of controversy and unresolved issues for the proposed project, as mentioned in the comments, include:

- **Transportation and Circulation:** Comments raised concerns about the use of vehicle miles traveled as a threshold of significance; loading impacts from transportation network companies and delivery companies on people walking and people biking; and impacts on transit and parking. Refer to Section 3.B, Transportation and Circulation.
- **Wind:** Comments raised concerns about the potential impacts of wind on people walking and people biking. Refer to Section 3.E, Wind.
- **Alternatives:** Comments raised concerns about the consideration of alternatives. Refer to Chapter 5, Alternatives.

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5. ALTERNATIVES

ORGANIZATION OF THIS CHAPTER

This chapter is divided into four main sections. The first section, “Introduction,” is an introductory section that describes the project objectives. The next section, “Description of Alternatives Selected,” provides a detailed description of each of the selected alternatives. The next section, “Alternatives Analysis,” presents a detailed analysis and evaluation of the environmental impacts of each of the alternatives, then compares them to existing conditions, to those of the proposed project, and relative to each other. The section is organized by resource topic; where the impacts for two or more alternatives are the same, the discussions are combined. The last section, “Comparison of Alternatives and Environmentally Superior Alternative,” identifies the environmentally superior alternative, based on the described analysis, and discusses alternative concepts that were considered but rejected from further study and the reasons for elimination.

A. INTRODUCTION

This chapter presents the alternatives analysis as required by the California Environmental Quality Act (CEQA) for the Hub Plan,¹ 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD). The discussion includes the methodology used to select alternatives to the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub HSD for detailed CEQA analysis, with the intent of developing potentially feasible alternatives that could avoid or substantially lessen the significant impacts identified while still meeting most of the project’s basic objectives. This chapter identifies a reasonable range of alternatives that meet these criteria and evaluates them for their comparative merits with respect to minimizing adverse environmental effects.

CEQA REQUIREMENTS FOR ALTERNATIVES ANALYSIS

The CEQA Guidelines, section 15126.6(a), state that an environmental impact report (EIR) must describe and evaluate a reasonable range of alternatives to a proposed project that would feasibly attain most of the project’s basic objectives but avoid or substantially lessen any identified significant adverse environmental effects of the project. An EIR is not required to consider every conceivable alternative to a proposed project or alternatives that are infeasible. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation.

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

The EIR must evaluate the comparative merits of the alternatives and include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. Specifically, the CEQA Guidelines set forth the following additional criteria for selecting and evaluating:

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if the alternatives would impede to some degree the attainment of project objectives or be more costly. (section 15126.6(b))
- The range of potential alternatives shall include those that could feasibly accomplish most of the basic objectives of the project and avoid or substantially lessen one or more of the significant effects. (section 15126.6(c))
- The specific alternative of “no project” shall also be evaluated along with its impact. (section 15126.6(e)(1))
- The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR needs to examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project. The range of feasible alternatives shall be selected and discussed in a manner that fosters meaningful public participation and informed decision-making. (section 15126.6(f))

ALTERNATIVES SELECTION

As discussed above, the alternatives to the proposed project are meant to feasibly attain most of the basic project objectives while avoiding or substantially lessening significant impacts. The project objectives of each component of the proposed project are summarized below for use in the identification, selection, and evaluation of alternatives. Refer to Chapter 2, Project Description, for a complete list of project objectives.

The Hub Plan objectives are to create a vibrant mixed-use neighborhood; maintain a strong preference for housing; encourage residential towers on selected sites; establish a functional, attractive, and well-integrated system of public streets and open spaces; reconfigure major streets and intersections for safety; and take advantage of opportunities to create public spaces.

The main objectives for the Hub HSD are to allow for ministerial approval of housing projects in the Hub Plan area and streamline their environmental review.

The main objectives for the 30 Van Ness Avenue Project are to create a high-density, mixed-use development that takes advantage of its prominent downtown location and contributes to the general plan housing element goals related to affordable housing; transform and enliven Market Street/Van Ness Avenue; develop an underused site that connects the Civic Center,

Mid-Market, and Hayes Valley neighborhoods; create office space that is modern, creative, and functional as well as a residential tower design that maximizes views for residents; and provide adequate vehicular parking and loading access.

The project objectives for the school component of the 98 Franklin Street Project are to develop a new high school building for the International High School in proximity to the French American International School's (FAIS's) other campus buildings and public transportation; replace an underutilized site with a vibrant mixed-use development, including an educational institution of long standing in the city; leverage the value of the 98 Franklin Street property by partnering with a residential developer to build housing in the air space above the school; and develop a project that enhances the larger community and generally conforms to the objectives and policies of the Hub Plan. The project objectives for the residential component of the 98 Franklin Street Project are to assist FAIS in developing a new building for the International High School on the lower five floors of the site; increase the supply of housing near Van Ness Avenue/Market Street; construct a substantial number of dwelling units that contribute to general plan housing element goals and the Association of Bay Area Governments' Regional Housing Needs Allocation for the city; and create a mixed-use project that is generally consistent with the land use, housing, open space, and other objectives and policies of the Hub Plan.

SUMMARY OF SIGNIFICANT IMPACTS

The EIR identified significant impacts associated with cultural resources, transportation and circulation, noise and vibration, air quality, wind, and shadow that would result from the proposed project (see Chapter 3, Environmental Setting and Impacts). Thirteen of the proposed project's significant impacts would be mitigated to a less-than-significant level with implementation of proposed mitigation measures, as identified below. Nine significant impacts of the proposed project would remain significant and unavoidable, even with implementation of mitigation measures. In addition, the EIR identifies five impacts that would be significant and unavoidable where mitigation is not feasible.

CULTURAL RESOURCES

- Impact CUL-1. The Hub Plan could cause a substantial adverse change in the significance of individual built-environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-CUL-1a through M-CUL-1f.
- Impact CUL-3. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of an individual built-environment resource and/or historic district, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code, from ground-borne vibration caused by temporary construction activities.

The impact would be reduced to less than significant with Mitigation Measures M-NOI-3a and M-NOI-3b.

- Impact CUL-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could cause a substantial adverse change in the significance of an archaeological resource, as defined in section 15064.5. The impact would be reduced to less than significant with Mitigation Measures M-CUL-4a through M-CUL-4d.
- Impact CUL-5. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could disturb human remains, including those interred outside of formal cemeteries. The impact would be reduced to less than significant with Mitigation Measures M-CUL-4a through M-CUL-4d.
- Impact C-CUL-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built-environment resources. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-CUL-1a through M-CUL-1f.
- Impact C-CUL-3. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, could result in a significant cumulative impact on archaeological resources and human remains. The impact would be reduced to less than significant with Mitigation Measures M-CUL-4a through M-CUL-4d.

TRANSPORTATION AND CIRCULATION

- Impact TR-1. During construction, the Hub Plan would require a substantially extended duration or intense activity, and the secondary effects would create potentially hazardous conditions for people walking, bicycling, or driving or interfere with accessibility for people walking or bicycling or substantially delay public transit. The impact would be significant and unavoidable, even with implementation of Mitigation Measure M-TR-1.
- Impact TR-8. The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking. The impact would be significant and unavoidable. There is no feasible mitigation available to reduce this impact.
- Impact C-TR-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts. The impact would be significant and unavoidable, even with implementation of Mitigation Measure M-TR-1.
- Impact C-TR-7. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant

cumulative loading impacts. The impact would be significant and unavoidable. There is no feasible mitigation available to reduce this impact.

NOISE AND VIBRATION

- Impact NOI-1. During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area, in excess of standards. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-NOI-1a and M-NOI-1b.
- Impact NOI-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. The impact would be reduced to less than significant with Mitigation Measure M-NOI-1a.
- Impact NOI-3. Construction of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would generate excessive ground-borne vibration or ground-borne noise levels. The impact would be reduced to less than significant with Mitigation Measures M-NOI-3a and M-NOI-3b.
- Impact NOI-4. During operation, the Hub Plan would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area, in excess of standards. The impact would be reduced to less than significant with Mitigation Measure M-NOI-4.
- Impact C-NOI-1. Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in a substantial temporary or permanent increase in ambient noise levels in excess of standards. The impact would be significant and unavoidable. No additional mitigation measures beyond M-NOI-1a and M-NOI-1b have been identified.
- Impact C-NOI-3. Operation of the Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area, in excess of standards. The impact would be reduced to less than significant with Mitigation Measure M-NOI-4.

AIR QUALITY

- Impact AQ-4. During construction, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. The impact would be reduced to less than significant with Mitigation Measures M-AQ-4a and M-AQ-4b.

- Impact AQ-5. During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-AQ-5a through M-AQ-5c.
- Impact AQ-7. The Hub Plan would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-AQ-5c and M-AQ-7a through M-AQ-7e.
- Impact AQ-9. During construction and operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. The impact would be reduced to less than significant with Mitigation Measures M-AQ-5c, M-AQ-9a, M-AQ-9b, and M-AQ-9c.
- Impact C-AQ-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-AQ-4b, M-AQ-5c, and M-AQ-7a through M-AQ-7e.
- Impact C-AQ-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions. The impact would be reduced to less than significant with Mitigation Measures M-AQ-5c and M-AQ-9a through M-AQ-9c.

WIND

- Impact WI-1: The Hub Plan could create wind hazards in publicly accessible areas of substantial pedestrian use. The impact would be reduced to less than significant with Mitigation Measures M-WI-1a and M-WI-1b.
- Impact WI-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create wind hazards in publicly accessible areas of substantial pedestrian use. The impact would be reduced to less than significant with Mitigation Measure M-WI-1b.
- Impact C-WI-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably

foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts. The impact would be significant and unavoidable, even with implementation of Mitigation Measures M-WI-1a and M-WI-1b.

SHADOW

- Impact SH-1. The Hub Plan would create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces. The impact would be significant and unavoidable. There are no feasible mitigation measures that would reduce shadow impacts.
- Impact C-SH-1. The Hub Plan, in combination of past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts. The impact would be significant and unavoidable. There are no feasible mitigation measures that would reduce shadow impacts.

B. DESCRIPTION OF ALTERNATIVES SELECTED

This section identifies and describes the following alternatives to the Hub Plan, the two individual development projects, and the Hub HSD:

- Alternative A – Hub Plan and Hub HSD No Project Alternative
- Alternative B – Hub Plan Land Use Plan Only Alternative
- Alternative C – Hub Plan Reduced Intensity Alternative
- Alternative D – 30 Van Ness Avenue No Project Alternative
- Alternative E – 30 Van Ness Avenue Reduced Intensity Alternative
- Alternative F – 98 Franklin Street No Project Alternative
- Alternative G – 98 Franklin Street Reduced Intensity Alternative

These seven alternatives were determined to adequately represent the range of potentially feasible alternatives required under CEQA for this project. These alternatives would lessen or, in some cases, avoid significant and unavoidable adverse impacts related to built-environment resources, transportation, air quality, noise, wind, and shadow. Multiple “no project” alternatives are included as Alternatives A (for the Hub Plan), D (for the 30 Van Ness Avenue Project), and F (for the 98 Franklin Street project), as required by CEQA, even though they would not meet the basic project objectives of those respective components of the proposed project. Alternatives B, C, E, and G are all potentially feasible options that would meet the basic project objectives to varying degrees; these four alternatives are all reduced variations of those project components.

The selected alternatives are described in further detail below. **Table 5-1** compares each alternative to the proposed project and its respective impacts.

ALTERNATIVE A – HUB PLAN AND HUB HSD NO PROJECT ALTERNATIVE

CEQA Guidelines section 15126.6(e)(3)(A) indicates that, generally, when a project being analyzed is a revision to an existing land use or regulatory plan (such as the Hub Plan as a revision to the Market and Octavia Plan Area Plan and the planning code and zoning map revisions that would implement the Hub Plan), the No Project Alternative should be considered to be a continuation of the existing plan into the future. CEQA Guidelines section 15126.6(e)(3)(A) states that, “Typically, this is a situation where other projects initiated under the existing plan will continue while the new plan is developed. Thus, the projected impacts of the proposed plan or alternative plans would be compared to the impacts that would occur under the existing plan.” Consistent with this guidance, the Hub Plan and Hub HSD No Project Alternative considered in this EIR preserves the existing zoning and height and bulk controls in the Market and Octavia Area Plan and assumes no adoption of the Hub Plan or Hub HSD. No streetscape and street network improvements in the Hub Plan area would occur, and the Hub Plan area would not be designated an HSD.

Alternative A considers individual development projects in general with the assumption that buildout of the 18 sites within the proposed Hub Plan boundaries, as presented in **Table 2-1**, p. 2-24, including the two sites at 30 Van Ness Avenue and 98 Franklin Street, would occur by 2040 and be developed according to current land use controls for zoning, height, and bulk specifications as specified in the Market and Octavia Area Plan. In addition, any individual development projects under Alternative A would be required to comply with the mitigation measures identified in the Market and Octavia Area Plan. Individual development projects under Alternative A are also assumed to meet Better Streets Plan requirements.

Growth projections under Alternative A are based on anticipated future growth for San Francisco, the need for more housing, and the fact that the San Francisco General Plan has identified the Hub Plan area as an ideal location for high-density housing. As discussed in Section E.3, Population and Housing, in the initial study (Appendix B), the San Francisco Planning Department (department) and Association of Bay Area Governments (ABAG) expect San Francisco to gain approximately 101,000 households and 270,000 residents between 2010 and 2040. Employment is forecast to increase by 34 percent during this period, while housing production in the city is estimated to total approximately 20,170 units. Development projections for Alternative A are calculated by growth allowed under existing zoning. The total number of new residential units developed under Alternative A would be approximately 5,300 (compared to the potential for approximately 8,100 new units under the Hub Plan). Although it is probable

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Description	The Hub Plan would implement changes to current zoning controls, including changes to height and bulk districts for select sites, to allow more housing, including more affordable housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically office, institutional, art, and public uses. The Hub Plan also calls for public realm improvements to streets and alleys within and adjacent to the Hub Plan area, such as sidewalk widening, streetlight upgrades, median realignment, road and vehicular parking reconfiguration, tree planting, and the addition of bulb-outs. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a 45-story building with ground-floor retail space, 11 floors of office space, and approximately 33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the existing 100-space surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades 9–12 of FAIS).	Buildout according to current land use controls for zoning, height, and bulk specifications as specified in the Market and Octavia Area Plan.	Assumes the same policies, planning code and general plan amendments as with the Hub Plan and Hub HSD, except that this alternative would exclude implementation of the Hub Plan’s proposed streetscape and street network improvements.	Modifies the buildout assumptions at the 18 sites identified for height and bulk increases. Requires that all projects involving historic resources conform to the Secretary of the Interior’s Standards for Rehabilitation.	No change to existing conditions.	Partial retention of the existing office/retail building and construction of an approximately 11-story building with ground-floor retail space and 10 floors of office space, reaching a height of approximately 150 feet.	No change to existing conditions.	Construction of a 120-foot (10-story) building that includes 54,505 square feet of residential uses, 81,000 square feet of school uses, 23,753 square feet of parking uses, and 3,100 square feet of retail uses.
Ability to Meet Project Sponsor’s Objectives	Meets all of the sponsor’s objectives.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would achieve most but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would not meet any of the sponsor’s objectives.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.	Would not meet any of the sponsor’s objectives.	Would achieve some but not all of the sponsor’s objectives but to a lesser extent than the proposed project.
Land Use and Planning								
Physical Division of Community	Impact LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not physically divide an established community.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Conflict with Land Use Plans	Impact LU-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Land Use	Impact C-LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to cumulative land use impacts.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Aesthetics								
Scenic Vista	Impact AE-1: The Hub Plan would not have a substantial adverse effect on a scenic vista.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Conflict with Zoning and Scenic Quality	Impact AE-2: The Hub Plan would not conflict with applicable zoning and other regulations governing scenic quality or substantially damage scenic resources.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Light and Glare	Impact AE-3: The Hub Plan would not create a new source of substantial light or glare in the Hub Plan area that would adversely affect daytime or nighttime views or substantially affect people or properties.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Aesthetics	Impact C-AE-1: The Hub Plan, along with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on aesthetics.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Population and Housing								
Population Growth	Impact PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not induce substantial unplanned population growth beyond that projected by regional forecasts, either directly or indirectly.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Housing Demand	Impact PH-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate housing demand beyond projected housing forecasts.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Replacement Housing	Impact PH-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing outside of the Hub Plan area.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Population and Housing	Impact C-PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and, cumulatively, other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on population or housing.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cultural Resources								
Historical Resources	Impact CUL-1: The Hub Plan could cause a substantial adverse change in the significance of individual built environment resources and/or historic districts, as defined in section 15064.5, including resources listed in articles 10 or 11 of the San Francisco Planning Code.	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Historical Resources	Impact CUL-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a substantial adverse change to individual built environment resources and/or historic districts, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Historical Resources	Impact CUL-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of an individual built environment resource and/or historic district, as defined in section 15064.5, including those resources listed in article 10 or 11 of the San Francisco Planning Code, from ground-borne vibration caused by temporary construction activities.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Archeological Resources	Impact CUL-4: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could cause a substantial adverse change in the significance of an archaeological resource, as defined in section 15064.5.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Human Remains	Impact CUL-5: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could disturb human remains, including those interred outside of formal cemeteries.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Historical Resources	Impact C-CUL-1: The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in demolition and/or alteration of built environment resources.	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Cumulative Historical Resources	Impact C-CUL-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in demolition and/or alteration of built environment resources.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Archeological Resources	Impact C-CUL-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, could result in a significant cumulative impact on archaeological resources and human remains.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Tribal Cultural Resources								
Change in Significance	Impact TCR-1: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of a tribal cultural resource.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Tribal Consultation Resources	Impact C-TCR-1: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the city, could result in a significant cumulative impact on tribal cultural resources.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Transportation and Circulation								
Circulation Interference	Impact TR-1: The Hub Plan would require an extended duration for the construction period and intense construction activity, the secondary effects of which could create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit.	Less than the proposed Hub Plan. (SU)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Circulation Interference	Impact TR-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not require an extended duration for the construction period or intense construction activity, the secondary effects of which could not create potentially hazardous conditions for people walking, bicycling, or driving; interfere with accessibility for people walking or bicycling; or substantially delay public transit.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
VMT	Impact TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not cause substantial additional VMT or induced automobile travel.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Driving Hazards	Impact TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create major driving hazards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Transit Delay and Hazards	Impact TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially delay local or regional transit or create potentially hazardous conditions for public transit providers.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Hazardous Conditions	Impact TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people walking or otherwise interfere with accessibility for people walking to the project site or adjoining areas.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Hazardous Conditions	Impact TR-7. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Loading	Impact TR-8. The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking.	Similar to the proposed Hub Plan. (SU)	Similar to the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Loading	Impact TR-9. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would accommodate commercial vehicle and passenger loading demand.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Parking	Impact TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in a substantial vehicular parking deficit.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Emergency Access	Impact TR-11. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in inadequate emergency access.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Construction	Impact C-TR-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative construction-related transportation impacts.	Less than the proposed Hub Plan. (SU)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (SUM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (SUM)
Cumulative VMT	Impact C-TR-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not cause substantial additional VMT or substantially induce automobile travel.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Traffic Hazards	Impact C-TR-3. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to traffic hazards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Transit Impacts	Impact C-TR-4. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative transit impacts.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Pedestrians	Impact C-TR-5. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts on people walking.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Bicyclists	Impact C-TR-6. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative bicycle impacts.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Loading	Impact C-TR-7. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts.	Similar to the proposed Hub Plan. (SU)	Similar to the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Cumulative Loading	Impact C-TR-8. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not contribute considerably to significant cumulative loading impacts.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Parking	Impact C-TR-9. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative vehicular parking impacts.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Emergency Access	Impact C-TR-10. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in significant cumulative impacts related to emergency access.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Noise								
Construction Noise	Impact NOI-1. During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Construction Noise	Impact NOI-2. Construction of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Construction Vibration	Impact NOI-3. Construction of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would generate excessive ground-borne vibration or ground-borne noise levels.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTSM)
Operational Noise	Impact NOI-4. During operations, the Hub Plan would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Operational Noise	Impact NOI-5. Operations of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTSM)
Cumulative Construction Noise	Impact C-NOI-1. Construction of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Streets, in combination with other past, present, and reasonably foreseeable future projects, would result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (SUM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (SUM)
Cumulative Construction Vibration	Impact C-NOI-2. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of excessive ground-borne vibration or ground-borne noise levels during construction.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTS)
Cumulative Operational Noise	Impact C-NOI-3. Operation of the Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	NA	NA	NA	NA

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Cumulative Operational Noise	Impact C-NOI-4. Operation of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (LTS)
Air Quality								
Conflict with Clean Air Plan	Impact AQ-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue or 98 Franklin Street, would not conflict with or obstruct implementation of the 2017 Clean Air Plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Similar to the proposed 30 Van Ness Avenue Project. (LTS)	Similar to the proposed 98 Franklin Street Project. (LTS)	Similar to the proposed 98 Franklin Street Project. (LTS)
Criteria Air Pollutants	Impact AQ-2. The Hub Plan would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-3. The construction and operation of streetscape and street network improvements proposed as part of the Hub Plan would not result in a cumulatively considerable net increase in criteria pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (NI)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-4. During construction, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-5. During operation, the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	Less than the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Criteria Air Pollutants	Impact AQ-6. During construction or operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not result in a cumulatively considerable net increase in criteria air pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
PM_{2.5} and TACs	Impact AQ-7. The Hub Plan would result in emissions of fine particulate matter (PM _{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.	Less than the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
PM_{2.5} and TACs	Impact AQ-8. Construction and operational activities associated with the streetscape and street network improvements proposed as part of the Hub Plan would not result in emissions of fine particulate matter (PM _{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (NI)	Less than the proposed Hub Plan. (LTS)	NA	NA	NA	NA

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
PM_{2.5} and TACs	Impact AQ-9. During construction and operation, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in emissions of fine particulate matter (PM _{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Odors	Impact AQ-10. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue or 98 Franklin Street, would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative PM_{2.5} and TACs	Impact C-AQ-1: The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM _{2.5}) and toxic air contaminants under 2040 cumulative conditions.	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	Less than the proposed Hub Plan. (SUM)	NA	NA	NA	NA
Cumulative PM_{2.5} and TACs	Impact C-AQ-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in exposure of sensitive receptors to substantial levels of fine particulate matter (PM _{2.5}) and toxic air contaminants under 2040 cumulative conditions.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Greenhouse Gas Emissions								
Cumulative GHG	Impact C-GG-1: The Hub Plan would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative GHG	Impact C-GG-2: The Hub Plan's streetscape and street network improvements and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)	Less than the proposed 98 Franklin Street Project. (LTS)
Wind								
Wind in Outdoor Public Areas	Impact WSI-1: The Hub Plan could create wind hazards in publicly accessible areas with substantial pedestrian use.	Less than the proposed Hub Plan. (LTSM)	Same as the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	NA	NA	NA	NA
Wind in Outdoor Public Areas	Impact WI-2: The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create wind hazards in publicly accessible areas with substantial pedestrian use.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Wind in Outdoor Public Areas	Impact C-WI-1. The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable wind impacts.	Less than the proposed Hub Plan. (SUM)	Same as the proposed Hub Plan. (SUM)	Similar to the proposed Hub Plan. (SUM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Similar to the proposed 30 Van Ness Avenue Project. (SUM)	Less than the proposed 98 Franklin Street Project. (NI)	Similar to the proposed 98 Franklin Street Project. (SUM)

TABLE 5-1. COMPARISON OF THE ENVIRONMENTAL IMPACTS OF THE HUB PLAN, 30 VAN NESS AVENUE, AND 98 FRANKLIN STREET TO IMPACTS OF ALTERNATIVES

Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Shadow								
Outdoor Public Areas	Impact SH-1. The Hub Plan would create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.	Similar to the proposed Hub Plan. (SU)	Same as the proposed Hub Plan. (SU)	Less than the proposed Hub Plan. (SU)	NA	NA	NA	NA
Outdoor Public Areas	Impact SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not create new shadow that would substantially and adversely affect the use and enjoyment of publicly accessible open spaces.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Outdoor Public Areas	Impact C-SH-1. The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would result in cumulatively considerable shadow impacts.	Similar to the proposed Hub Plan. (SU)	Same as the proposed Hub Plan. (SU)	Less than the proposed Hub Plan. (SU)	NA	NA	NA	NA
Cumulative Outdoor Public Areas	Impact C-SH-2. The individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the vicinity, would not result in cumulatively considerable shadow impacts.	NA	NA	NA	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Recreation								
Use of Facilities	Impact RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the use of existing parks and recreational facilities but would not result in substantial deterioration or physical degradation of such facilities or adverse physical environmental effects from development of new recreational facilities.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Recreation Impacts	Impact C-RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on recreational resources.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Utilities and Service Systems								
Water Supply	Impact UT-1: Adequate water supplies are available to serve the Hub Plan, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and reasonably foreseeable future development in normal, dry, and multiple dry years, unless the Bay-Delta Plan Amendment is implemented; in that event, the SFPUC would develop new or expanded water supply facilities to address shortfalls in single and multiple dry years, which would occur with or without implementation of the Hub Plan. Impacts related to new or expanded water supply facilities cannot be identified at this time, and such facilities cannot be implemented in the near term. The SFPUC would address supply shortfalls through increased rationing, which could result in significant cumulative effects. However, the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not make a considerable contribution to impacts from increased rationing.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Expansion of Utilities	Impact UT-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not require or result in the relocation, expansion, or construction of new wastewater treatment, stormwater, electric power, natural gas, or telecommunication facilities, or exceed capacity of the wastewater treatment provider when combined with other commitments.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Solid Waste	Impact UT-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, and comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Utilities	Impact C-UT-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute to cumulative impacts on utilities and services.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Public Services								
Demand for Services	Impact PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the demand for police service or fire protection service but not to such an extent that construction of new or expanded facilities would be required.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Schools	Impact PS-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly generate school students and increase enrollment in public schools such that new or physically altered facilities would be required.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Public Services	Impact C-PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, combined with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to cumulative impacts on police, fire, and school district services such that new or physically altered facilities, the construction of which could cause significant environmental impacts, would be required in order to maintain acceptable levels of service.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Biological Resources								
Sensitive Species	Impact BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Less than the proposed Hub Plan. (LTSM)	Similar to the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Migration	Impact BI-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Conflict with Existing Policies	Impact BI-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Biological Resources	Impact C-BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on biological resources.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Geology and Soils								
Surface Fault Rupture	Impact GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be subject to the effects of surface fault rupture.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Seismic Ground Shaking	Impact GE-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking.	Less than to the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Ground Failure	Impact GE-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause seismically induced ground failure, including liquefaction, earthquake-induced settlement, or landslides.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Erosion	Impact GE-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in substantial erosion or loss of topsoil.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Geologic Unit/Unstable Soil	Impact GE-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be located on a geologic unit or soil that is unstable or that could become unstable as a result of the project.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Impacts	Proposed Project: Hub Plan, 30 Van Ness Avenue, and 98 Franklin Street	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Expansive Soils	Impact GE-6: The Hub Plan, as well as or individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create substantial risks to life or property as a result of location on expansive soils.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Paleontological Resources	Impact GE-7: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could directly or indirectly destroy a unique paleontological resource or site or geological feature.	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed Hub Plan. (LTSM)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTSM)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTSM)
Cumulative Geology and Soils	Impact C-GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts related to geology, soils, seismicity, and paleontological resources.	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Hydrology and Water Quality								
Water Quality Control Plan	Impact HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and would not conflict with or obstruct implementation of a water quality control plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Groundwater	Impact HY-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a sustainable groundwater management plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Drainage	Impact HY-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation onsite or offsite.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Drainage	Impact HY-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in manner that would result in flooding onsite or offsite.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Drainage	Impact HY-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street and, would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Flooding	Impact HY-6: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impede or redirect floodflows.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Hydrology	Impact C-HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on hydrology and water quality	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Hazards and Hazardous Materials								
Transit and Disposal	Impact HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Upset and Accidental Conditions	Impact HZ-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In addition, development under the Hub Plan, as well as the individual development projects, could occur on the site(s) identified on the list of hazardous materials sites compiled pursuant to Government Code section 65962.5 but compliance with regulations would ensure that impacts remain less than significant.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Building Materials	Impact HZ-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not expose workers and the public to hazardous building materials, including asbestos-containing materials, lead-based paint, polychlorinated biphenyls, bis(2-ethylhexyl) phthalate, and mercury, during demolition and building removal or result in a release of these materials into the environment during construction.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Schools	Impact HZ-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)

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Emergency Response	Impact HZ-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Hazards	Impact C-HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact related to hazards and hazardous materials.	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Energy								
Construction and Operation	Impact EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation; or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Cumulative Energy	Impact C-EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts related to the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Similar to the proposed Hub Plan. (LTS)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (LTS)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (LTS)
Agriculture and Forestry Resources								
Agriculture and Forestry	Impact AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not (a) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; (b) conflict with existing zones for agricultural use or a Williamson Act contract; (c) conflict with existing zoning for, or cause rezoning of, forestland or timberland; (d) result in the loss of forestland or conservation of forestland to non-forest use; or (e) involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to non-agricultural use or forestland to non-forest use.	Less than the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)
Cumulative Agriculture and Forestry	Impact C-AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in impacts on agriculture and forestry resources.	Less than the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Similar to the proposed Hub Plan. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 30 Van Ness Avenue Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)	Less than the proposed 98 Franklin Street Project. (NI)

Legend: NI = No Impact; LTS = Less than significant impact, no mitigation required; S = Significant; SU = Significant and unavoidable impact, no feasible mitigation; SUM = Significant and unavoidable impact after mitigation; NA = Not Applicable

that not all sites would be built out to the Market and Octavia Area Plan height limits, it is also likely that development on some parcels would take advantage of state and local density bonus programs, which would allow construction to heights that would be above current limits. Therefore, on balance, a buildout to existing height limits is reasonable for purposes of estimating development potential under this alternative.

Alternative A assumes that growth in the Hub Plan area and the city would occur with or without implementation of the Hub Plan, but that, absent implementation of the Hub Plan, a smaller percentage of citywide growth would occur within the Hub Plan area.

ALTERNATIVE B – HUB PLAN LAND USE PLAN ONLY ALTERNATIVE

Alternative B assumes that the same policies and planning code and general plan amendments would be implemented as with the Hub Plan and Hub HSD, except that this alternative would exclude implementation of the Hub Plan’s proposed streetscape and street network improvements in the Hub Plan vicinity, which are shown in Chapter 2, Project Description, **Figure 2-2**, p. 2-4. This alternative was developed in the event that the proposed streetscape and street network improvements program does not get approved as part of the Hub Plan. This alternative would generally reduce impacts associated with excavation for streetscape and street network improvements, which would reduce transportation, air quality, and noise effects. This alternative assumes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would occur, as described throughout this EIR. As such, development assumptions for this alternative would be the same as those for the Hub Plan and Hub HSD, including the addition in the Hub Plan area of approximately 8,100 residential units, which includes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Alternative B includes upzoning of the 18 sites, rezoning parcels from Neighborhood Commercial Transit (NCT) to Downtown General Commercial (C-3-G) zoning district, and extending the Van Ness and Market Downtown Residential Special Use District, as would occur with the proposed project. There would be no change to development intensity as compared to the project.

ALTERNATIVE C – HUB PLAN REDUCED INTENSITY ALTERNATIVE

Alternative C, the Hub Plan Reduced Intensity Alternative, would reduce the buildout assumptions at the 18 sites identified for height and bulk increases detailed in **Table 2-1**, p. 2-24, with an estimated 7,802 new residential units (compared with approximately 8,100 new residential units under the Hub Plan), including a 15 percent development “buffer” within this number (same as the Hub Plan). In addition, all projects involving historic resources within the Hub Plan area would be required to conform to the Secretary of the Interior’s Standards for Rehabilitation. This alternative was developed to reduce identified impacts on built-environment resources and reduce shadow impacts.

To partially address identified impacts on historic resources, under Alternative C, the height increase and rezoning proposed at 99 South Van Ness Avenue, which contains historical or potentially historical resources, would not occur, and this site would be removed from the project entirely and the existing zoning and height and bulk controls in the Market and Octavia Area Plan would be preserved. At 170 Otis Street, upzoning would still occur but would meet the Secretary of the Interior's standards because controls would be included with conditions that would require buildout to be in compliance with the standards. At 10 South Van Ness Avenue, the Full Preservation Alternative identified in the 10 South Van Ness Avenue EIR would be implemented, under which the existing building at 10 South Van Ness Avenue, a historical resource, would undergo some changes but it would retain all of its exterior and interior character-defining features.²

In addition to the features of Alternative C described above, upzoning throughout the Hub Plan area would be reduced by 20 feet at the following sites to reduce impacts related to shadow:

- 1 South Van Ness Avenue (from 650 to 630 feet)
- 10 South Van Ness Avenue (from 590 to 570 feet); this reduction in height would be in addition to implementation of the full preservation alternative
- 1500–1540 Market Street (from 450 to 430 feet)
- 30 Van Ness Avenue (from 520 to 500 feet)
- 33 Gough Street (from 250 to 230 feet)

The height reductions at all sites except for 33 Gough Street would reduce shadow impacts on Patricia's Green, while the height reduction at 33 Gough Street would reduce shadow impacts on McCoppin Hub.

Finally, as noted above, all subsequent development projects in the Hub Plan area involving historic resources would be required to conform to the Secretary of the Interior's Standards for Rehabilitation. Given that conformity with the standards generally limits the maximum development potential of an individual site (because the standards require retention of character-defining features), this requirement is likely to further reduce development potential under this alternative, although it is unknown exactly by how much.

ALTERNATIVE D – 30 VAN NESS AVENUE NO PROJECT ALTERNATIVE

Under Alternative D, the 30 Van Ness Avenue Project would not be developed as proposed in this EIR. Existing conditions at 30 Van Ness Avenue would not change under Alternative D. The existing 75-foot office and retail building would remain, along with the existing ingress and

² San Francisco Planning Department, 10 South Van Ness Avenue Mixed Use Project, October 17, 2018, http://sfmea.sfplanning.org/2018-10-17_DEIR_10SVN_reduced.pdf, accessed March 4, 2018.

egress points. As such, the proposed housing units, commercial square footage, parking, and streetscape improvements at 30 Van Ness Avenue would not be implemented. **Table 5-2** provided a comparison of the proposed 30 Van Ness Avenue Project and Alternative D.

TABLE 5-2. 30 VAN NESS AVENUE COMPARISON

Category	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative
Residential units	610	0	0
Retail	21,000	13,840	15,000
Office	350,000	184,100	350,000
Privately owned public open space	3,300	0	3,300
Commonly accessible open space – residential	29,280	0	0
Podium height	150 feet	75 feet	150 feet
Building height	520 feet		
Stories	45	5	11
Basement levels	2	0	1
Employees	1,520	710	1,503
Parking spaces	243	42	89
Loading Spaces	6	0	5
Bicycle spaces	310 class 1, 48 class 2	0	72 class 1, 15 class 2

ALTERNATIVE E – 30 VAN NESS AVENUE REDUCED INTENSITY ALTERNATIVE

Alternative E, the 30 Van Ness Avenue Reduced Intensity Alternative, includes partial retention of the existing office/retail building and construction of an approximately 11-story building with ground-floor retail space and 10 floors of office space, reaching a height of approximately 150 feet, with an additional 20 feet to the top of the rooftop mechanical features, as permitted by the planning code. The building would have a trapezoidal shape, similar to the proposed project, with frontages along Market and Fell streets and Van Ness Avenue. In total, the existing structure would be altered and expanded from its current envelope of approximately 184,100 square feet to a total of up to approximately 365,000 square feet, including up to 15,000 square feet of retail and 350,000 square feet of general office space. Under this alternative, office uses in the existing building would be expanded, with ground-floor retail remaining on the first floor

and 10 floors of office uses above. Compared to the proposed project at 30 Van Ness Avenue, which includes a minimum of 350 units and up to 610 units in the tower portion of the building, Alternative E does not include residential uses or a tower. This alternative would include one below-grade parking level with 89 parking spaces, two car-share spaces, 87 bicycle parking spaces, five loading spaces, and require 1,503 permanent employees, while the proposed project would include two below-grade parking levels with 243 parking spaces, five car-share spaces, 358 bicycle parking spaces, six loading spaces, and require 1,520 permanent employees. Unlike the proposed project, there would be no change to the existing generator in the building, and no changes to curbside parking and loading are proposed for the alternative.

Alternative E would provide approximately 3,300 square feet of privately owned public open space on the ground floor, same as under the proposed project. Alternative E was developed to provide less vehicle parking and reduce shadow impacts as well as impacts related to the duration of construction activities, specifically, those related to air quality, noise, and transportation.

Unlike the proposed project, under Alternative E, no changes to curbside parking and loading are proposed. Construction is anticipated to last 32 months, from May 2020 to December 2022, as opposed to 44 months under the proposed project. The generator size and quantity would remain the same as under the proposed project: two back-up generators located at a height of 120 feet on the podium. **Table 5-2**, p. 5-25, shows a comparison between the proposed project and Alternative E.

ALTERNATIVE F – 98 FRANKLIN STREET NO PROJECT ALTERNATIVE

Under Alternative F, the 98 Franklin Street Project would not be developed as proposed in this EIR. In the near-term, the project site at 98 Franklin Street, which includes an approximately 100-space surface parking lot, would remain substantially in its existing physical condition, and the proposed new educational, residential, and retail uses would not be developed. In addition, no changes to curbside parking or loading would occur. However, with current land values and housing demand in San Francisco being relatively high, and given the project site's location near downtown, employment centers, and public transit facilities, it is unlikely that this project site would remain in its existing condition for the long term. As described in Chapter 2, Project Description, the project site at 98 Franklin Street is currently zoned C-3 (Downtown Commercial) and has a height limit of 85 feet. It is possible that the project site could be developed pursuant to existing zoning and height controls. **Table 5-3** provides a comparison between the 98 Franklin Street Project and Alternative F.

TABLE 5-3. 98 FRANKLIN STREET COMPARISON

Category	98 Franklin Street Proposed Project	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Land Use	Residential, School, Retail	Parking	Residential, School, Retail
Residential Square Feet	384,100	0	54,505
School Square Feet	81,000	0	81,000
Parking Square Feet	41,800	18,060	23,753
Retail Square Feet	3,100	0	3,100
Number of Buildings	1	0	1
Dwelling Units	345	0	47
School Classrooms	36	0	36
Height	365 feet	0 feet	120 feet
Stories	36	0	10
Depth of Excavation	39 feet	0	29 feet
Parking Spaces	111	Approx. 100	41
Loading Spaces	3	0	3
Permanent Employment	14	Approx. 2	9

ALTERNATIVE G – 98 FRANKLIN STREET REDUCED INTENSITY ALTERNATIVE

Alternative G, the 98 Franklin Street Reduced Intensity Alternative, includes a 162,358-square-foot, 120-foot (10-story) building that includes 54,505 square feet of residential uses, 81,000 square feet of school uses, 23,753 square feet of parking uses, and 3,100 square feet of retail uses.

Under this alternative, FAIS would be located within five levels in the podium (the same as under the proposed project), and 47 residential units would be constructed in a five-story tower, as compared to 345 residential units in a 31-story tower under the proposed project. The residential units would include 10 studios, 24 one-bedroom units, eight two-bedroom units, and five three-bedroom units, as compared to 172 studios, 86 one-bedroom units, 54 two-bedroom units, and 33 three-bedroom units under the proposed project. This alternative would also include 41 below-ground parking spaces, three car share spaces, 191 bicycle parking spaces, three loading spaces, and nine permanent employees, while the proposed project would include 111 below-ground parking spaces, three car share spaces, 539 bicycle parking spaces, three loading spaces, and 14 permanent employees. As with the proposed project, one 1,500-horsepower emergency diesel generator is proposed. Unlike the proposed project, no changes to

curbside parking and loading are proposed for the alternative. **Table 5-3**, p. 5-27, shows a comparison between the proposed 98 Franklin Street Project and Alternative G. This alternative was developed to reduce shadow impacts on Patricia's Green and to reduce the amount of excavation required (approximately 10 feet less than the project), which would reduce impacts on archaeological resources as well as air quality and noise.

C. ALTERNATIVES ANALYSIS

CULTURAL RESOURCES

BUILT-ENVIRONMENT RESOURCES

THE HUB PLAN AND HUB HSD ALTERNATIVES

Implementation of the Hub Plan would result in increased development throughout the Hub Plan area, particularly on the 18 sites where a height increase is proposed. Although implementation of the Hub Plan would not immediately change the significance of a historical resource, a foreseeable result of zoning control changes proposed under the Hub Plan could be demolition of built historic resources (i.e., resources individually listed/eligible for listing or historic district contributors) or their alteration in an adverse manner. Even with implementation of Mitigation Measures M-CUL-1a through M-CUL-1f, these measures would not be enough to avoid, rectify, reduce, or compensate for the loss of built-environment resources, and the impact under the Hub Plan would remain significant and unavoidable with mitigation. See Section 3.A, Cultural Resources, Impact CUL-1, for a detailed description of the Hub Plan impacts.

Alternatives A (Hub Plan and Hub HSD No Project Alternative) and C (Hub Plan Reduced Intensity Alternative) would both involve less-intensive development in the Hub Plan area. Alternative A would not increase the allowable building heights and density as the Hub Plan would, and this alternative would likely result in less development pressure for redevelopment of "underutilized" sites because there would be fewer development incentives. Under Alternative A, subsequent development projects would be consistent with existing zoning, height and bulk districts, and the Market and Octavia Area Plan's stated objective of preserving and rehabilitating historic resources. When individual projects are proposed for development, each project would be evaluated for its impact on historical resources per the requirements of CEQA and the planning department's historic review procedures. However, it is possible that, even absent the Hub Plan and Hub HSD, historical resources could be demolished because policies under the Market and Octavia Area Plan encourage but do not require the retention of historical resources. Accordingly, Alternative A would not necessarily avoid the significant and unavoidable impact of the proposed Hub Plan on built-environment resources and historic districts. Cumulative impacts on historical

resources would likewise be significant and unavoidable for Alternative A, similar to the proposed the Hub Plan since the contribution of Alternative A would not be substantially reduced when compared to the Hub Plan. During environmental review of subsequent development projects under Alternative A, project-specific mitigation measures comparable to those identified in Section 3.A, Cultural Resources (M-CUL-1a, M-CUL-1b, M-CUL-1c, M-CUL-1d, and M-CUL-1e) could be imposed on subsequent individual developments, as appropriate, to reduce significant impacts on individual built-environment resources and historic district contributors. However, these mitigation measures may not eliminate the significant and unavoidable impacts because it cannot be known whether the mitigation measures would avoid demolition or substantial alteration of a built-environment resource or whether the mitigation measures would reduce potential impacts on individual built-environment resources and historic districts to a less-than-significant level. Thus, the impact of Alternative A on individual built-environment resources and historic districts would be significant and unavoidable with mitigation, similar to the proposed Hub Plan, although somewhat reduced compared to the Hub Plan because of less development pressure. Cumulative impacts would likewise be significant.

Alternative C involves a plan to avoid specific, identified built-environment resources, as detailed under “Description of Alternatives Selected,” above. This would result in an overall reduction in impacts on built-environment resources compared to the Hub Plan; impacts on historic resources would be less than significant because subsequent development projects would be required to meet the Secretary of the Interior’s Standards for Rehabilitation under this alternative. Cumulative impacts would likewise be less than significant.

Alternative B (Hub Plan Land Use Plan Only Alternative) would involve the same development sites and intensity as the Hub Plan and Hub HSD but would not involve streetscape and street network improvements. The streetscape and street network improvements are not a major contributor to the impacts associated with implementation of the Hub Plan identified in Section 3.A, Cultural Resources. As such, subsequent development under Alternative B, like the Hub Plan, would result in a significant and unavoidable impact on individual built-environment resources and/or historic districts resulting from potential demolition or substantial alteration of those resources, although somewhat reduced compared to the Hub Plan because of the removal of the streetscape and street network improvements. Cumulative impacts would likewise be significant and unavoidable, similar to the Hub Plan, although somewhat reduced compared to the Hub Plan because of the removal of the streetscape and street network improvements. Mitigation Measures M-CUL-1a, M-CUL-1b, M-CUL-1c, M-CUL-1d, and M-CUL-1e would apply to Alternative B with respect to direct effects on individual built-environment resources and historic districts.

Alternatives A and B would not include construction of the streetscape and street network improvements in the Hub Plan area; consequently, they would avoid the less-than-significant impact with mitigation on the San Francisco Auxiliary Water Supply System (AWSS) that

would result under the Hub Plan. Thus, Mitigation Measure M-CUL-1f would not be required for these alternatives as it would be under the Hub Plan. Likewise, Alternatives A and B would avoid all construction-related impacts on individual built-environment resources and historic districts associated with the streetscape and street network improvements. Under Alternative C, the impacts resulting from the streetscape and street network improvements would be the same as under the Hub Plan, because Alternative C would not result in any changes to the proposed streetscape and street network changes.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

Implementation of the 30 Van Ness Avenue Project would not result in a substantial adverse change to individual built-environment resources and/or historic districts, and the impact would be less than significant. See Section 3.A, Cultural Resources, Impact CUL-2, for a detailed description of the 30 Van Ness Avenue Project impacts.

Under Alternative D (30 Van Ness Avenue No Project Alternative), the proposed project at 30 Van Ness Avenue would not be constructed, which would avoid the 30 Van Ness Avenue Project's less-than-significant impacts, individually and cumulatively, on built-environment resources, specifically on the former Masonic Temple at 25 Van Ness Avenue, 50 Fell Street, 10 South Van Ness, 135 Van Ness Avenue, the Civic Center Landmark District, and the Market Street Cultural Landscape District.

Compared to the 30 Van Ness Avenue Project, Alternative E (30 Van Ness Avenue Reduced Intensity Alternative) would result in similar, albeit somewhat reduced, less-than-significant impacts on 25 Van Ness Avenue, 50 Fell Street, 10 South Van Ness, 135 Van Ness Avenue, the Civic Center Landmark District, and the Market Street Cultural Landscape District because development would still occur and somewhat alter the setting of nearby built-environment resources. Similar to the 30 Van Ness Avenue Project, no mitigation would be necessary to reduce identified impacts on built-environment resources to a less-than-significant level.

98 FRANKLIN STREET PROJECT ALTERNATIVES

Implementation of the 98 Franklin Street Project would not result in a substantial adverse change to individual built-environment resources and/or historic districts, and the impact would be less than significant. See Section 3.A, Cultural Resources, Impact CUL-2, for a detailed description of the 98 Franklin Street Project impacts.

Under Alternative F (98 Franklin Street No Project Alternative), the proposed project at 98 Franklin Street would not be constructed, which would avoid the 98 Franklin Street Project's less-than-significant impacts, individually and cumulatively, on built-environment resources, specifically on Miramar Apartments, Young Men's Institute, 41 Franklin Street, 150 Oak Street, the Market Street Masonry Landmark District, and the Hayes Valley Residential Historic District.

Under Alternative G (98 Franklin Street Reduced Intensity Alternative), reduced development at 98 Franklin Street would result in similar, albeit somewhat reduced, less-than-significant impacts on the Miramar Apartments, Young Men's Institute, 41 Franklin Street, 150 Oak Street, the Market Street Masonry Landmark District, and the Hayes Valley Residential Historic District because development would still occur at the site and would still somewhat alter the setting of nearby built-environment resources. Similar to the 98 Franklin Street Project, no mitigation is necessary to reduce identified impacts on built-environment resources to a less-than-significant level.

ARCHAEOLOGICAL RESOURCES AND HUMAN REMAINS

THE HUB PLAN AND HUB HSD ALTERNATIVES

Implementation of the Hub Plan would result in excavations from subsequent development and the streetscape and street network improvements have the potential to physically damage or destroy as-yet undocumented archaeological resources or human remains. However, with implementation of Mitigation Measures M-CUL-4a, M-CUL-4b, and M-CUL-4c, impacts under the Hub Plan would be reduced to less-than-significant levels. See Section 3.A, Cultural Resources, Impact CUL-4 and CUL-5, for a detailed description of the Hub Plan impacts.

Alternatives A (Hub Plan and Hub HSD No Project Alternative) and C (Hub Plan Reduced Intensity Alternative) would result in less-intensive development within the Hub Plan area compared with what is anticipated under the Hub Plan and Hub HSD. However, as with the Hub Plan and Hub HSD, subsequent development projects under Alternatives A and C could still result in excavation that might disturb prehistoric and/or historic-period archaeological resources and human remains; any of these occurrences could result in a significant impact. However, excavation may not be as deep under these alternatives because of less-intensive vertical development; impacts may, therefore, not be as severe as under the Hub Plan. During environmental review of subsequent development projects, under Alternative A, the project-specific mitigation measures identified in the Market and Octavia Area Plan (Mitigation Measures C1 [Archaeological – Soils Disturbing Activities in Archaeologically Documented Properties]; C2 [Archaeological – General Soils Disturbing Activities]; C3 [Archaeological – Soils Disturbing Activities in Public Street and Open Space Improvements]; and C4 [Archaeological – Soils Disturbing Activities in Mission Dolores Archaeological District]), which are comparable to those identified in Section 3.A, Cultural Resources (M-CUL-4a, M-CUL-4b, and M-CUL-4c), would be expected to reduce the impact of subsequent development. Under Alternative C, subsequent development projects would be subject to the mitigation measures identified in Section 3.A, Cultural Resources (M-CUL-4a, M-CUL-4b, M-CUL-4c), and, similar to the proposed project, impacts would be reduced to a less-than-significant level. Both Alternatives A and C, in combination with reasonably foreseeable projects, could result in cumulative impacts on as-yet undocumented resources and human remains through ground disturbance that is likely to encounter archaeologically sensitive

sediments. Even with a reduced intensity of development under Alternatives A and C, significant ground disturbance is still likely. Cumulative impacts on as-yet undocumented archaeological resources attributed to Alternatives A and C would be reduced to less than significant with implementation of the mitigation measures identified in Section 3.A, Cultural Resources (M-CUL-4a, M-CUL-4b, M-CUL-4c).

Under Alternative B, the development intensity proposed is the same as under the Hub Plan; therefore, impacts on archaeological resources and human remains under Alternative B would be the same as under the Hub Plan, although slightly reduced because of removal of the streetscape and street network improvements.

Alternatives A and B would eliminate construction of the streetscape and street network improvements; consequently, it would avoid the less-than-significant impacts with mitigation on archaeological resources and human remains under the Hub Plan by avoiding excavation associated with streetscape and street network improvements. Alternative C would retain the streetscape and street network improvements, and the impact on archaeological resources and human remains from this project component would be the same as under the Hub Plan, less than significant with mitigation implemented.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

Implementation of the 30 Van Ness Avenue Project would result in excavations that have the potential to physically damage or destroy as-yet undocumented archaeological resources or human remains. However, with implementation of Mitigation Measure M-CUL-4d, impacts under the 30 Van Ness Avenue Project would be reduced to less-than-significant levels. See Section 3.A, Cultural Resources, Impact CUL-4 and CUL-5, for a detailed description of the 30 Van Ness Avenue Project impacts.

Alternative D would eliminate the less-than-significant impacts with mitigation on archaeological resources and human remains that would occur under the 30 Van Ness Avenue Project; because no subsurface soil disturbance would occur, no mitigation would be necessary. Alternative E would still involve ground-disturbing activities and excavation but at a substantially reduced level, most likely resulting in shallower excavation compared to the proposed project (30 feet as opposed to 48 feet under the proposed project). However, approximately the same amount of archaeologically sensitive sediment would be disturbed under Alternative E, meaning that the potential for affecting as-yet undocumented archaeological resources and human remains would be the same as the 30 Van Ness Avenue Project. As a result, implementation of Mitigation Measure M-CUL-4d would still be required under Alternative E to reduce impacts related to excavations under Alternative E. Cumulative impacts under Alternative D would be less than significant because the project would not result in subsurface excavation, which has the potential to damage, destroy, disturb, or remove archaeological resources and human remains. Cumulative impacts under Alternative E would be less than significant with mitigation, as with the proposed

project, because this alternative would result in subsurface excavation that, when considered cumulatively with other foreseeable projects where ground disturbance is proposed, could still contribute to an overall cumulative impact on as-yet undocumented resources and human remains. The project's cumulative contribution to this impact under Alternative E would be reduced to less than significant with implementation of the mitigation measure identified in Section 3.A, Cultural Resources (M-CUL-4d), same as under the proposed project.

98 FRANKLIN STREET PROJECT ALTERNATIVES

Implementation of the 98 Franklin Street Project would result in excavations that have the potential to physically damage or destroy as-yet undocumented archaeological resources or human remains. However, with implementation of Mitigation Measure M-CUL-4d, impacts under the 98 Franklin Street Project would be reduced to less-than-significant levels. See Section 3.A, Cultural Resources, Impact CUL-4 and CUL-5, for a detailed description of the 98 Franklin Street Project impacts.

Alternative F would eliminate the less-than-significant impacts with mitigation on archaeological resources and human remains that would occur under the 98 Franklin Street Project, and because no subsurface soil disturbance would occur, no mitigation is necessary. Alternative G would still involve ground-disturbing activities and excavation, but at a reduced level (29 feet as opposed to 39 feet under the proposed project), resulting in shallower excavation when compared to the proposed project. However, approximately the same amount of archaeologically sensitive sediment would be disturbed under Alternative G, meaning that the potential for affecting as-yet undocumented archaeological resources and human remains would be the same as the 98 Franklin Street Project. As a result, implementation of Mitigation Measure M-CUL-4d would still be required under Alternative G to reduce impacts related to excavations under Alternative G. Cumulative impacts under Alternative G would be less than significant with mitigation, as with the proposed project, because this alternative would result in subsurface excavation that, when considered cumulatively with other foreseeable projects where ground disturbance is proposed, could still contribute to an overall cumulative impact on as-yet undocumented resources and human remains. The project's cumulative contribution to this impact under Alternative G would be reduced to less than significant with implementation of the mitigation measure identified in Section 3.A, Cultural Resources (M-CUL-4d), same as under the proposed project.

TRANSPORTATION AND CIRCULATION

Based on the same methodology used for the proposed Hub Plan, **Table 5-4** presents the person trips by way of travel and vehicle trips for the proposed Hub Plan and three Hub Plan alternatives for the weekday daily and p.m. peak hour conditions, while **Table 5-5**, p. 5-35, presents the person trips by way of travel and vehicle trips for the two individual development projects and their alternatives for the weekday daily and p.m. peak hour conditions.

TABLE 5-4. PROPOSED HUB PLAN AND HUB PLAN ALTERNATIVES TRIP GENERATION BY WAY OF TRAVEL AND TIME PERIOD

Time Period/Proposed Hub Plan and Hub Plan Alternatives	Person Trips by Way of Travel ¹				Vehicle Trips
	Auto	Transit	Non-Motorized ²	Total	
Daily – Hub Plan					
Proposed Hub Plan	29,593	14,611	46,762	90,966	22,981
Alt A: Hub Plan No Project Alternative	21,190	10,462	33,484	65,136	16,456
Alt B: Hub Plan Land Use Only Alternative	29,593	14,611	46,762	90,966	22,981
Alt C: Hub Plan Reduced Intensity Alternative	28,504	14,073	45,042	87,619	22,136
PM Peak Hour – Hub Plan					
Proposed Hub Plan	6,493	3,937	11,483	21,912	4,909
Alt A: Hub Plan No Project Alternative	4,649	2,819	8,222	15,690	3,515
Alt B: Hub Plan Land Use Only Alternative	6,493	3,937	11,483	21,912	4,909
Alt C: Hub Plan Reduced Intensity Alternative	6,254	3,792	11,061	21,106	4,728

Source: Technical Memorandum – The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR - Estimation of Project Travel Demand, January 2019. See Appendix D.

¹ Numbers may not sum to total due to rounding.

² Non-motorized modes include walk, bicycle, and other non-motorized modes such as scooters and skateboards.

TABLE 5-5. PROPOSED 30 VAN NESS AVENUE AND 98 FRANKLIN STREET PROJECTS AND ALTERNATIVES TRIP GENERATION BY WAY OF TRAVEL AND TIME PERIOD

Time Period/Proposed Project and Project Alternatives	Person Trips by Way of Travel ¹					Vehicle Trips
	Auto	Transit	Bike	Walk	Total	
Daily – 30 Van Ness Avenue Project						
30 Van Ness Avenue Project	2,986	3,418	427	5,448	12,280	2,080
Alt D: 30 Van Ness Avenue No Project Alternative ²	NA	NA	NA	NA	NA	NA
Alt E: 30 Van Ness Avenue Reduced Intensity Alternative	1,704	2,154	287	3,560	7,704	1,254
98 Franklin Street Project						
98 Franklin Street Project	769	773	82	1,050	2,674	543
Alt F: 98 Franklin Street No Project Alternative ²	NA	NA	NA	NA	NA	NA
Alt G: 98 Franklin Street Reduced Intensity Alternative	281	380	46	617	1,323	224
PM Peak Hour – 30 Van Ness Avenue Project						
30 Van Ness Avenue Project	266	305	38	487	1,097	182
Alt D: 30 Van Ness Ave No Project Alternative ²	NA	NA	NA	NA	NA	NA
Alt E: 30 Van Ness Ave Reduced Intensity Alternative	152	193	26	318	689	117
98 Franklin Street Project						
98 Franklin Street Project	75	71	7	95	248	49
Alt F: 98 Franklin Street No Project Alternative ²	NA	NA	NA	NA	NA	NA
Alt G: 98 Franklin Street Reduced Intensity Alternative	36	30	3	58	128	28

Source: Technical Memorandum – The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District EIR - Estimation of Project Travel Demand, January 2019. See Appendix D.

¹ Numbers may not sum to total due to rounding.

² NA = not applicable. Under the no project alternatives for the 30 Van Ness Avenue Project and the 98 Franklin Street Project, the existing land uses and associated travel demand on these sites would remain.

Alternative A (Hub Plan and Hub HSD No Project Alternative): Travel Demand Assumptions. As indicated in **Table 5-4**, p. 5-34, the number of total person trips generated by Alternative A would be less than under the Hub Plan. On a daily basis, Alternative A would generate a total of 65,136 person trips by all ways of travel, compared to 90,966 person trips for the Hub Plan (i.e., 28 percent fewer person trips). Similarly, as indicated in **Table 5-4**, p. 5-34, the number of person trips and vehicle trips generated by Alternative A during the p.m. peak hour would also be less than with the Hub Plan. During the p.m. peak hour, Alternative A

would generate 15,690 person trips by all ways of travel and 3,515 vehicle trips, compared to 21,912 person trips and 4,909 vehicle trips for the Hub Plan (i.e., 28 percent fewer person trips and vehicle trips).

Alternative B (Hub Plan Land Use Plan Only Alternative): Travel Demand Assumptions.

Alternative B includes the same land use development as under the Hub Plan, and therefore travel demand generated by this alternative would be the same as for the Hub Plan. As for the Hub Plan, Alternative B would generate a total of 90,966 person trips by all ways of travel on a daily basis. During the p.m. peak hour, Alternative B would generate 21,912 person trips by all ways of travel and 4,909 vehicle trips.

Alternative C (Hub Plan Reduced Intensity Alternative): Travel Demand Assumptions.

Travel demand generated by Alternative C would be slightly less than for the Hub Plan. On a daily basis, Alternative C would generate a total of 87,619 person trips by all ways of travel, compared to 90,966 person trips for the Hub Plan (i.e., 4 percent fewer person trips). During the p.m. peak hour, Alternative C would generate 21,106 person trips by all ways of travel and 4,728 vehicle trips, compared to 21,912 person trips and 4,909 vehicle trips for the Hub Plan (i.e., 4 percent fewer person trips and vehicle trips).

Alternative D (30 Van Ness Avenue No Project Alternative): Travel Demand Assumptions.

Under Alternative D, the existing land uses on the 30 Van Ness Avenue project site would remain similar to existing conditions; therefore, this alternative would not generate any additional person or vehicle trips compared to existing conditions.

Alternative E (30 Van Ness Avenue Reduced Intensity Alternative): Travel Demand Assumptions.

As indicated in Table 5-5, p. 5-35, the number of total person trips generated by Alternative E would be less than under the proposed 30 Van Ness Avenue Project. On a daily basis, Alternative E would generate a total of 7,704 person trips by all modes, compared to 12,280 person trips for the 30 Van Ness Avenue Project (i.e., 37 percent fewer person trips). During the p.m. peak hour, Alternative E would generate 689 person trips by all ways of travel and 117 vehicle trips, compared to 1,097 person trips and 182 vehicle trips for the 30 Van Ness Avenue Project (i.e., 37 percent fewer person trips and 36 percent fewer vehicle trips).

Alternative F (98 Franklin Street No Project Alternative): Travel Demand Assumptions.

Under Alternative F, the existing land uses on the 98 Franklin Street project site would remain similar to existing conditions; therefore, this alternative would not generate any additional person or vehicle trips compared to existing conditions.

Alternative G (98 Franklin Street Reduced Intensity Alternative): Travel Demand Assumptions.

As indicated in Table 5-5, p. 5-35, the number of total person trips generated by Alternative G would be less than under the proposed 98 Franklin Street Project. On a daily basis, Alternative G would generate a total of 1,323 person trips by all ways of travel, compared to 2,674 person trips for the 98 Franklin Street Project (i.e., 49 percent fewer person trips).

During the p.m. peak hour, Alternative G would generate 128 person trips by all ways of travel and 28 vehicle trips, compared to 248 person trips and 49 vehicle trips for the 98 Franklin Street Project (i.e., 48 percent fewer person trips and 43 percent fewer vehicle trips).

THE HUB PLAN AND HUB HSD ALTERNATIVES

Construction of overlapping subsequent development projects under the Hub Plan could result in multiple travel lane closures, a high volume of trucks in the vicinity, and sidewalk closures that could disrupt or delay transit, people walking, and people biking, or result in potentially hazardous conditions; therefore, construction-related transportation impacts of the Hub Plan would be significant. As a point of clarification, all other transportation-related impacts would be less than significant. Even with implementation of Mitigation Measure M-TR-1, substantial disruption to transportation could continue to occur, and construction-related transportation impacts of the Hub Plan would remain significant and unavoidable with mitigation. Regarding operation, implementation of the Hub Plan would require projects with more than 100,000 gross square feet of uses to prepare a Driveway and Loading Operations Plan (DLOP) to accommodate project loading demand and to reduce conflicts between project driveway and loading operations and the transportation network. However, for some development projects, it may not be feasible to provide onsite and/or on-street loading facilities to accommodate the demand, which could disrupt circulation for transit, vehicles, people walking, and people biking; create potentially hazardous conditions; and result in a significant and unavoidable loading impact. All other operational impacts of the Hub Plan (i.e., vehicle miles traveled [VMT], driving hazards, local and regional transit operations, people walking and people biking, parking, and emergency access) would be less than significant. See Section 3.B, Transportation and Circulation, Impacts TR-1, TR-3, TR-4, TR-5, TR-6, TR-7, TR-8, TR-10, and TR-11, for a detailed description of the Hub Plan impacts.

Under Alternative B, the same amount of development would occur and at the same locations as under the Hub Plan, but the proposed streetscape and street network changes would not be constructed. As with the Hub Plan, the construction of overlapping subsequent development projects under Alternative B could result in multiple travel lane closures, a high volume of trucks in the vicinity, and sidewalk closures that could disrupt or delay transit, people walking, and people biking or result in potentially hazardous conditions. Therefore, similar to the Hub Plan, construction-related transportation impacts would be significant. Alternatives A and C would also include construction of development projects at locations similar to those proposed under the Hub Plan; however, they would entail less construction than the Hub Plan (about 25 less land use development under Alternative A and about 20 percent less land use development under Alternative C). While the construction duration of individual development projects under Alternatives A and C would be less than the larger development projects that would be possible under the Hub Plan, despite the best efforts of the project sponsors and project construction contractors, it is possible that simultaneous construction of the development

projects could result in significant construction-related transportation impacts. Therefore, construction-related transportation impacts would be significant and unavoidable for Alternative A and significant and unavoidable with mitigation for Alternatives B and C, similar to the Hub Plan.

Similar to the Hub Plan, Alternatives A, B, and C could include development projects where it might not be feasible to provide onsite and/or on-street curb loading spaces to accommodate the new loading demand and, similar to the Hub Plan, these development projects could disrupt circulation and create potentially hazardous conditions. Therefore, loading impacts under Alternative A would be significant and unavoidable; loading impacts under Alternatives B and C would be significant and unavoidable, even with implementation of M-TR-1, similar to the Hub Plan.

With respect to cumulative conditions, construction activities associated with development projects in the study area under Alternatives A, B, and C could overlap with simultaneous construction of other nearby projects; however, because Alternatives A and C include less development than the Hub Plan, the potential for overlap would be less under these alternatives compared with the Hub Plan. Therefore, similar to the Hub Plan, these alternatives would contribute considerably to significant cumulative construction-related transportation impacts. Cumulative construction-related transportation impacts would be significant and unavoidable under Alternative A and, as with the Hub Plan, significant and unavoidable with mitigation for Alternatives B and C.

With respect to cumulative loading conditions, it may not be feasible for development projects under Alternatives A, B, and C to provide onsite, on-street loading facilities to accommodate demand; therefore, these alternatives could contribute considerably to significant cumulative loading impacts. The contribution to significant cumulative loading impacts would be less for Alternatives A and C, which involve less development than the Hub Plan. The cumulative loading impacts would be significant and unavoidable for Alternative A and significant and unavoidable, even with implementation of a DLOP, under Alternatives B and C, similar to the Hub Plan.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

Construction and operational impacts of the 30 Van Ness Avenue Project (i.e., VMT, driving hazards, local and regional transit operations, people walking and people biking, commercial and passenger loading, parking, and emergency access) would be less than significant. See Section 3.B, Transportation and Circulation, Impacts TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-9, TR-10, and TR-11, for a detailed description of the 30 Van Ness Avenue Project impacts.

Under Alternative D, the existing conditions on the project site would not change, and therefore Alternative D would not have any construction or operational impacts related to transportation and circulation.

Alternative E would have similar transportation elements as the 30 Van Ness Avenue Project (e.g., on-street and off-street loading, driveways), but would not include any residential uses and would include fewer retail square feet than the 30 Van Ness Avenue Project. Because this alternative would be smaller than the 30 Van Ness Avenue Project, it would generate fewer person and vehicle trips on a daily basis and during the peak hour (see **Table 5-5**, p. 5-35). Similar to the 30 Van Ness Avenue Project, Alternative E construction and operational impacts would be less than significant.

Considering cumulative conditions, Alternative D would maintain the existing uses on the project site and, therefore, unlike the 30 Van Ness Avenue Project, would not contribute considerably to significant cumulative construction-related transportation impacts. Alternative E would have a shorter construction duration than the 30 Van Ness Avenue Project (44 months for the 30 Van Ness Avenue Project compared to 32 months for Alternative E). However, construction activities under this alternative could overlap with simultaneous construction of other nearby projects, which could, in turn, result in significant disruptions for transit, people walking, and people biking. Therefore, similar to the 30 Van Ness Avenue Project, Alternative E would contribute considerably to significant cumulative construction-related transportation impacts; however, given the shorter construction duration for Alternative E, this contribution would be slightly smaller than it would be under the proposed 30 Van Ness Avenue Project. Thus, the cumulative construction-related transportation impacts for Alternative E would be significant and unavoidable with mitigation. Similar to the 30 Van Ness Avenue Project, Alternative E would accommodate its loading demand within onsite, on-street loading spaces and, therefore, would not contribute considerably to significant cumulative loading impacts. As such, the cumulative loading impacts under Alternative E would be less than significant.

98 FRANKLIN STREET PROJECT ALTERNATIVES

Construction and operational impacts of the 98 Franklin Street Project (i.e., VMT, driving hazards, local and regional transit operations, people walking and people biking, commercial and passenger loading, parking, and emergency access) would be less than significant. See Section 3.B, Transportation and Circulation, Impacts TR-2, TR-3, TR-4, TR-5, TR-6, TR-7, TR-9, TR-10, and TR-11, for a detailed description of the 98 Franklin Street Project impacts.

Under Alternative F, the existing conditions on the project site would not change; therefore, Alternative F would not have any construction or operational impacts related to transportation and circulation.

Alternative G would have similar transportation elements as the 98 Franklin Street Project (e.g., on-street and off-street loading, driveways), but would not include any residential uses and would include fewer retail square feet than the 98 Franklin Street Project. Because this alternative would be smaller than the 98 Franklin Street Project, it would generate fewer person

and vehicle trips on a daily basis and during the p.m. peak hour (see **Table 5-5**, p. 5-35). Similar to the 98 Franklin Street Project, Alternative G's construction and operational impacts would be less than significant.

Considering cumulative conditions, Alternative F would maintain the existing uses on the project site and, therefore, unlike the 98 Franklin Street Project, would not contribute considerably to significant cumulative construction-related transportation impacts. Alternative G would have a shorter construction duration than the 98 Franklin Street Project (27 months for the 98 Franklin Street Project compared to 21 to 22 months for Alternative G). However, construction activities under this alternative could overlap with simultaneous construction of other nearby projects that could result in significant disruptions for transit, people walking, and people biking. Therefore, similar to the 98 Franklin Street Project, Alternative G would contribute considerably to significant cumulative construction-related transportation impacts, although, because of the shorter construction duration for Alternative G, this contribution would be slightly smaller than it would be under the 98 Franklin Street Project. The cumulative construction-related transportation impacts under Alternative G would be significant and unavoidable with mitigation. Similar to the 98 Franklin Street Project, Alternative G would accommodate its loading demand within onsite, on-street loading spaces and, therefore, would not contribute considerably to significant cumulative loading impacts. As such, cumulative loading impacts under Alternative G would be less than significant.

NOISE AND VIBRATION

THE HUB PLAN AND HUB HSD ALTERNATIVES

During construction, the Hub Plan would generate a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards. Although Mitigation Measures M-NOI-1a and M-NOI-1b would reduce the amount of construction noise generated by subsequent development projects in the Hub Plan area to the extent feasible, construction noise from these projects would still be significant and unavoidable. In addition, construction of subsequent development projects under the Hub Plan could involve the use of vibration-generating construction equipment, which could result in damage to structures or sleep disturbance. Mitigation Measures M-NOI-3a and M-NOI-3b would be required to ensure that cosmetic or structural damage caused by construction-related vibration would be avoided or identified through a monitoring program and repaired as necessary to return any damaged structure to its pre-construction condition. Therefore, following the application of M-NOI-3a and M-NOI-3b, the impact of subsequent development under the Hub Plan would be reduced to a less-than-significant level. Operations under the Hub Plan would also result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area in excess of standards because of the

potential for new development projects to introduce new noise-generating sources (e.g. HVAC equipment, emergency generators, loading docks, etc.). Implementation of Mitigation Measure M-NOI-4, along with compliance with the building code, would reduce noise impacts from new noise-generating sources in the Hub Plan area, and the impact would be less than significant. See Section 3.C, Noise and Vibration, Impacts NOI-1, NOI-3, and NOI-4, for a detailed description of the Hub Plan impacts.

Build-out in the Hub Plan area under Alternative A (Hub Plan and Hub HSD No Project Alternative) would be expected to result in less traffic in the Hub Plan area, as shown in **Table 5-4**, p. 5-34, and therefore, in less traffic-generated vehicular noise, compared to that under the Hub Plan. Vehicular traffic-generated noise would be similar under Alternatives B (Hub Plan Land Use Plan Only Alternative) and C (Hub Plan Reduced Intensity Alternative) to that under the Hub Plan because the level of development and the related vehicular traffic increase in the Hub Plan area would be similar, as demonstrated in **Table 5-4**, p. 5-34. As discussed in Section 3.C, Noise and Vibration, project-generated vehicular traffic would not result in significant increases in traffic noise along any modeled roadway segment with the Hub Plan. Because traffic volumes under Alternative A would be lower and traffic volumes under Alternatives B and C would be comparable, vehicular traffic noise impacts under these alternatives would be less than significant, same as the Hub Plan, although reduced under Alternative A.

As was the case with the Hub Plan, Plan contributions to cumulative vehicular traffic noise impacts under Alternatives B and C, which would result in similar traffic as the Hub Plan, would not be cumulatively considerable and cumulative impacts are less than significant. Under Alternative A, development in the Hub Plan area would generally be less because there would be less development pressure for redevelopment of “underutilized” sites. Therefore, under Alternative A, contributions to cumulative vehicular traffic noise impacts would most likely be less than under the Hub Plan and Alternatives B and C and would not be cumulatively considerable. Cumulative impacts would be less than significant under Alternatives A, B, and C, similar to the Hub Plan.

With regard to construction noise impacts under Alternatives A, B, and C, construction activities and associated noise would most likely be less under Alternative A compared to the Hub Plan because development would not be incentivized to the same extent as proposed under the Hub Plan. Alternative B would have construction-related noise impacts essentially comparable to, although slightly less than, those of the Hub Plan because the level of build-out development would be similar, except that the less-than-significant construction noise impacts from streetscape and street network improvements would not occur. Similarly, although Alternative C would reduce the intensity of development throughout the Hub Plan area but would not rezone 99 South Van Ness Avenue (this site would be removed entirely under this alternative), the typical equipment required (and, consequently, the typical noise

levels generated) in the Hub Plan area and at each site, except the 99 South Van Ness Avenue site, would also be similar. With regard to Alternative A, because the Hub Plan would not be implemented, development in the area would proceed under the Market and Octavia Area Plan. Because the Market and Octavia Area Plan determined that there would be no significant noise impacts at the program or project level, impacts from Alternative A would be less than what would occur under the Hub Plan (and less than Alternatives B and C).

As with the Hub Plan, construction noise impacts for Alternatives B and C would be addressed with implementation of the Hub Plan mitigation measures that pertain to construction noise. Under these two alternatives, construction noise Mitigation Measures M-NOI-1a and M-NOI-1b would be applied to subsequent development projects to reduce construction noise effects. These measures would reduce some construction noise impacts to less-than-significant levels; however, as with the Hub Plan, precise details about the future individual developments under these alternatives are not known at this time (such as the exact construction schedule or construction equipment required). For this reason, it is not possible to ensure that these mitigation measures would reduce construction noise impacts for all future development under these alternatives to less-than-significant levels. As was the case for the Hub Plan, even though the less-than-significant construction noise impacts from streetscape and street network improvements would not occur, construction noise impacts under Alternatives B and C would be significant and unavoidable, although slightly reduced compared to the Hub Plan.

Under Alternative A, development in the Hub Plan area would occur pursuant to the Market and Octavia Area Plan. In the EIR for that project, all noise impacts, including cumulative construction noise impacts, were determined to be less than significant. Therefore, under Alternative A, cumulative construction noise impacts would be less than significant and less than under the Hub Plan. Under Alternatives B and C, as with the Hub Plan, cumulative construction-related noise impacts would be significant and unavoidable with mitigation because these alternatives would still result in a considerable contribution to overall impacts, given the scale of anticipated development, although slightly reduced compared to the Hub Plan.

Because Alternative B would not include the streetscape and street network improvements, as proposed under the Hub Plan, the less-than-significant construction noise impacts associated with streetscapes and street network improvements under the Hub Plan would be eliminated. Alternative C would include the same streetscape and street network improvements as proposed under the Hub Plan. As with the Hub Plan, the construction duration for individual streetscape and street network improvements is expected to be short term (between four and 10 weeks per block for each improvement project) and linear, with construction equipment moving along the street during construction (e.g., not adjacent to the same noise-sensitive receptor for the entire duration of the improvement). For these reasons, any noise increases from construction activities associated with streetscape and street network improvements under Alternative C would be less than significant, as was the case for the Hub Plan.

Construction vibration effects under Alternative A would be less than significant, consistent with the conclusions reached in the Market and Octavia Area Plan EIR. Construction vibration effects under Alternatives B and C would be slightly less than those identified for the Hub Plan because development of future projects under these alternatives would be less than the level of development under the Hub Plan, given the lack of streetscape and street network improvement construction under Alternative B and the removal of one the 18 subsequent development projects under Alternative C. As with the Hub Plan, construction that could occur during nighttime hours (when people normally sleep) would most likely involve the use of smaller equipment, which typically results in relatively low vibration levels. For example, a small bulldozer, even at a distance of 5 feet from a given receptor, would generate a vibration level (0.034 peak particle velocity [PPV] in inches per second [in/sec]) below the distinctly perceptible criteria (0.1 PPV in/sec). Because equipment likely to be used during nighttime hours would be similar to that expected to be used under the Hub Plan, construction for these alternatives would also not result in a strongly perceptible vibration level during nighttime hours at sensitive receptor locations. Vibration annoyance impacts under Alternatives A, B, and C would be less than significant.

With regard to potential vibration-related damage impacts, construction vibration effects related to damage under Alternative A would be less than significant, consistent with the conclusions reached in the Market and Octavia Area Plan EIR. Construction vibration effects related to damage under Alternatives B and C would be comparable to those identified for the Hub Plan because the types of construction that would occur would be comparable, as would the distances between construction activities and nearby sensitive receptors. Mitigation Measures M-NOI-3a and M-NOI-3b would be applied to future development under Alternatives B and C to reduce potential vibration-related damage impacts from construction activities. Application of these mitigation measures would ensure that cosmetic and/or structural damage caused by construction-related vibration would be identified through a monitoring program and repaired as necessary to return any damaged historical architectural resource to its pre-construction condition. Therefore, as with the Hub Plan, damage-related vibration impacts under Alternatives B and C would be reduced to a less-than-significant level.

Cumulative vibration impacts under Alternatives A, B, and C related to annoyance and damage would be less than significant, as was the case with the Hub Plan (and the Market and Octavia Area Plan under Alternative A). Peak vibration levels do not combine in the way noise does; similar to the Hub Plan, multiple pieces of vibration-generating equipment operating simultaneously would not result in a higher peak velocity level. For this reason, a cumulative impact would not result.

Development of future individual projects under Alternative A could also result in the siting of noise-generating uses, such as heating, ventilating, and air-conditioning (HVAC) equipment, emergency generators, outdoor use areas that may use amplified music, loading docks, and any other mechanical equipment (such as fire pumps). Future development projects would need to

demonstrate compliance with the noise ordinance; therefore, these types of operational noise sources would be expected to comply with applicable noise criteria, which would be demonstrated during the project-specific environmental analysis. Implementation of project-specific mitigation measures, as needed (noting that no mitigation measures were determined necessary under the Market and Octavia Area Plan for Alternative A), along with compliance with the building code, would reduce noise impacts from new noise-generating sources for future development under Alternative A to less-than-significant levels. With regard to the siting of noise-generating uses under Alternatives B and C, they would result in the development of similar projects in the Hub Plan area and would therefore result in the siting of similar noise-generating uses. Therefore, noise impacts related to the siting of noise-generating uses under Alternative B and C would be comparable and would be potentially significant, similar to the Hub Plan. Mitigation Measure M-NOI-4 would apply to Alternatives B and C and would reduce potential noise impacts to less-than-significant levels, as was the case with the Hub Plan.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

During construction, the 30 Van Ness Avenue Project could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. However, with implementation of Mitigation Measure M-NOI-1a, noise levels from project construction at 30 Van Ness Avenue, as well as the intensity of potential noise effects, would be reduced to the extent practicable, and the impact would be less than significant with mitigation. In addition, construction of the 30 Van Ness Avenue Project could involve the use of vibration-generating construction equipment, which could result in damage to structures or sleep disturbance. Mitigation Measures M-NOI-3a and M-NOI-3b would be required to ensure that cosmetic or structural damage caused by construction-related vibration would be avoided or identified through a monitoring program and repaired as necessary to return any damaged structure to its pre-construction condition. Therefore, following the application of M-NOI-3a and M-NOI-3b, the impact of the 30 Van Ness Avenue Project would be reduced to a less-than-significant level. Operations under the 30 Van Ness Avenue Project would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area, in excess of standards, because noise impacts from emergency generators and HVAC equipment would be less than significant. See Section 3.C, Noise and Vibration, Impacts NOI-2, NOI-3, and NOI-5, for a detailed description of the 30 Van Ness Avenue Project impacts.

Under Alternative D (30 Van Ness Avenue No Project Alternative), the existing conditions on the project site would not change; therefore, Alternative D would not have any construction or operational impacts related to noise, resulting fewer less impacts compared to the proposed project.

Under Alternative E (30 Van Ness Avenue Reduced Intensity Alternative), construction activities would be similar to those that would occur under the 30 Van Ness Avenue Project. Although the level of development would be less, Alternative E would have construction-

related noise and vibration impacts, essentially comparable to those of the 30 Van Ness Avenue Project. This is because the types of equipment required (and, consequently, the typical noise and vibration levels generated) at the site would be similar. Even though the overall duration of construction may be shorter, the worst-case noise and vibration levels expected to occur during the construction window would be essentially the same. Because the duration would be shorter, the length of time where impacts would occur would be less compared to the proposed project. However, as with the 30 Van Ness Avenue Project, construction noise and vibration impacts under Alternative E would be significant because of the worst-case noise and vibration levels being relatively comparable, though somewhat reduced compared to the proposed project. However, these impacts would be reduced to less-than-significant levels with implementation of mitigation measures.

Mitigation Measure M-NOI-1a would reduce noise effects of construction for Alternative E to the extent practicable, resulting in a less-than-significant impact with mitigation, similar to the 30 Van Ness Avenue Project. Because of the similar construction assumptions, vibration annoyance and damage-related impacts under Alternative E would be comparable to those described for the 30 Van Ness Avenue Project and less than significant with application of Mitigation Measures M-NOI-3a and M-NOI-3b.

Alternative E would have similar transportation elements as the 30 Van Ness Avenue Project (e.g., on-street and off-street loading, driveways), but would not include any residential uses and would include fewer retail square feet than the 30 Van Ness Avenue Project. Because this alternative would be smaller than the 30 Van Ness Avenue Project, it would generate fewer person and vehicle trips on a daily basis and during the peak hours, potentially resulting in less project-related transportation noise than the 30 Van Ness Avenue Project. Similar to the 30 Van Ness Avenue Project, Alternative E's traffic noise impacts would be less than significant, although somewhat reduced compared to the 30 Van Ness Avenue Project.

With regard to the siting of noise-generating uses, Alternative E would involve the siting of similar operational noise-generating uses (e.g., HVAC equipment and emergency generators). Therefore, noise impacts related to the siting of noise-generating uses under Alternative E would be comparable to those analyzed for the 30 Van Ness Avenue Project and be less than significant for both emergency generators and HVAC equipment. As with the 30 Van Ness Avenue Project, impacts related to the siting of noise-generating uses under Alternative E would be less than significant.

98 FRANKLIN STREET PROJECT ALTERNATIVES

During construction, the 98 Franklin Street Project could generate a substantial temporary or permanent increase in ambient noise levels in excess of standards. However, with implementation of Mitigation Measure M-NOI-1a, noise levels from project construction at the 98 Franklin Street Project, as well as the intensity of potential noise effects, would be reduced to the extent practicable, and the impact would be less than significant with mitigation. In

addition, construction of the 98 Franklin Street Project could involve the use of vibration-generating construction equipment, which could result in damage to structures or sleep disturbance. Mitigation Measures M-NOI-3a and M-NOI-3b would be required to ensure that cosmetic or structural damage caused by construction-related vibration would be avoided or identified through a monitoring program and repaired as necessary to return any damaged structure to its pre-construction condition. Therefore, following the application of M-NOI-3a and M-NOI-3b, the impact of the 98 Franklin Street Project would be reduced to a less-than-significant level. Operations under the 98 Franklin Street Project would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the Hub Plan area, in excess of standards, because noise from emergency generators and HVAC equipment would not conflict with the applicable standards. Noise impacts from these types of equipment would be less than significant. See Section 3.C, Noise and Vibration, Impacts NOI-2, NOI-3, and NOI-5, for a detailed description of the 98 Franklin Street Project impacts.

Under Alternative F (98 Franklin Street No Project Alternative), the existing conditions on the project site would not change; therefore, Alternative F would not have any construction or operational impacts related to noise, resulting in fewer impacts compared to the 98 Franklin Street Project.

Under Alternative G (98 Franklin Street Reduced Intensity Alternative), construction activities would be similar to those that would occur under the 98 Franklin Street Project. Although the level of development would be less, Alternative G would have construction-related noise and vibration impacts essentially comparable to those of the 98 Franklin Street Project. This is because the types of equipment required (and, consequently, the typical noise and vibration levels generated) at the site, as well as the distance between the site and nearby sensitive receptors, would be similar. Even though the overall duration of construction may be shorter, the worst-case noise and vibration levels expected to occur during the construction window would be essentially the same. Because the duration would be shorter, the length of time that the impacts would occur would be shorter. However, as with the 98 Franklin Street Project, construction noise and vibration impacts under Alternative G would be significant because of the worst-case noise and vibration levels being relatively comparable, though somewhat reduced compared to the 98 Franklin Street Project. However, these impacts would be reduced to less-than-significant levels with implementation of mitigation measures.

Mitigation Measure M-NOI-1a would reduce noise effects of construction for Alternative G to the extent practicable and would reduce construction noise impacts for Alternative G to a less-than-significant level, similar to the 98 Franklin Street project. Vibration annoyance and damage impacts under Alternative G would be comparable to those described for the 98 Franklin Street Project and less than significant with the application of Mitigation Measures M-NOI-3a and M-NOI-3b.

Alternative G would have similar transportation elements as the 98 Franklin Street Project (e.g., on-street and off-street loading, driveways), but would result in the development of less residential space. In addition, the amount of parking would also decrease. Because this alternative would be smaller than the 98 Franklin Street Project, it would generate fewer person and vehicle trips on a daily basis and during the peak hours, resulting in less project-related transportation noise than the 98 Franklin Street Project. Similar to the 98 Franklin Street Project, traffic noise impacts associated with Alternative G would be less than significant, although somewhat reduced compared to the 98 Franklin Street Project.

With regard to the siting of noise-generating uses, Alternative G would involve the siting of similar operational noise-generating uses (e.g., HVAC equipment and emergency generators). Therefore, noise impacts related to the siting of noise-generating uses under Alternative G would be comparable to those of the 98 Franklin Street Project and less than significant for both emergency generators and HVAC equipment. As with the 98 Franklin Street Project, impacts related to the siting of noise-generating uses would be less than significant.

AIR QUALITY

THE HUB PLAN AND HUB HSD ALTERNATIVES

The Hub Plan would not conflict with or obstruct implementation of the 2017 Clean Air Plan and would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status. The construction of subsequent development projects under the Hub Plan could result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status. Implementation of Mitigation Measures M-AQ-4a and M-AQ-4b would ensure that construction-related emissions would be less than significant. The operation of subsequent development projects under the Hub Plan could also result in a cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status. Mitigation Measures M-AQ-5a, M-AQ-5b, and M-AQ-5c would reduce impacts, but it is not possible to estimate the emissions or the effectiveness or feasibility of the mitigation measures, with the exception of M-AQ-5c, which did evaluate emission reductions; therefore, the impact remains significant and unavoidable. The Hub Plan and subsequent development projects would result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. Mitigation Measures M-AQ-5c, M-AQ-7a, M-AQ-7b, M-AQ-7c, M-AQ-7d, and M-AQ-7e would be implemented to reduce impacts, but impacts would remain significant and unavoidable. See Section 3.D, Air Quality, Impacts AQ-1, AQ-2, AQ-3, AQ-4, AQ-5, AQ-7, AQ-8, and AQ-10, for a detailed description of the Hub Plan impacts.

Alternative A (Hub Plan and Hub HSD No Project Alternative) is not expected to result in substantial new source of air pollution impacts compared to the Hub Plan. Due to a reduction in net trip generation rates (refer to **Table 5-4**, p. 5-34), the total criteria air pollutant (CAP) and toxic air contaminant (TAC) emissions would be lower than the levels presented in Section 3.D, Air Quality, for the Hub Plan. However, similar to the Hub Plan, Alternative A is expected to result in a significant impact related to air quality when background impacts are added to plan-level impacts, although somewhat reduced. As with the Hub Plan, annual average particulate matter 2.5 microns or fewer in diameter (PM_{2.5}) concentrations would be attributed largely to existing background levels, and excess cancer risk values would be above the Bay Area Air Quality Management District's (BAAQMD's) significance thresholds. Mitigation Measures E1 (Air Quality – Particulate Emissions During Construction) and E2 (Air Quality – Short Term Exhaust Emissions) from the Market and Octavia Area Plan EIR would be required under Alternative A and applicable during construction. Therefore, like the Hub Plan, the maximally exposed sensitive receptor locations are expected to exceed the Air Pollution Exposure Zone criteria for annual average PM_{2.5} concentrations and excess cancer risk, so impacts are expected to remain significant and unavoidable with mitigation, although somewhat reduced compared to the Hub Plan.

Alternative B (Hub Plan Land Use Only Plan Alternative) assumes the same level of development as proposed under the Hub Plan. However, Alternative B excludes implementation of the Hub Plan's proposed streetscape and street network improvements. Assuming similar mitigation measures as the Hub Plan, under Alternative B there would be no change to operational air pollution impacts as compared to the Hub Plan, because Alternative B includes the same land use development pattern as the Hub Plan. Similar to the Hub Plan, Alternative B would also include nine diesel emergency generators located on individual project sites, and there are no changes to the net trips generated, as shown in **Table 5-4**, p. 5-34. To the extent that construction of streetscape and street network improvements would increase emissions of CAPs and TACs, Alternative B would have lower emissions compared to the Hub Plan. Thus, CAP and TAC emissions associated with emission sources and the risk contribution from these sources would be similar to or lower than the risks under the Hub Plan. Because of the large contributions from background sources, the maximally exposed individual sensitive receptor is expected to exceed the Air Pollution Exposure Zone criteria for annual average PM_{2.5} concentrations and excess cancer risk, so impacts are expected to remain significant and unavoidable with mitigation.

Alternative C (Hub Plan Reduced Intensity Alternative) would modify assumptions related to the building height and bulk increases for the 18 sites within the Hub Plan. Moreover, this alternative would limit the development potential of other future projects throughout the Hub Plan area because of the requirement that calls for all projects involving historic resources within the Hub Plan area to conform to the Secretary of the Interior's Standards for Rehabilitation. This alternative assumes a reduction in zoning height (by approximately 20 feet) for some of the

individual development sites analyzed. Accordingly, the air quality analysis for this alternative assumes that individual development sites include a generator only for the sites that would be rezoned to more than 75 feet. However, the total number of generators considered under this Alternative C is fewer than the Hub Plan. This would result in lower CAP and TAC emissions compared to the levels analyzed for the Hub Plan. Alternative C also results in a small reduction in the net trip generation rate (approximately 4 percent, as shown in **Table 5-4**, p. 5-34), thus resulting in lower emissions. Therefore, CAP and TAC emissions for Alternative C would be lower than the levels analyzed for the proposed Hub Plan. This is expected to result in reduced cancer risk and PM_{2.5} concentrations for Alternative C. However, the overall impacts would continue to be significant with respect to air quality even though no new sources of emissions are created compared to the Hub Plan. Due to the large contributions from background sources, the maximally exposed individual sensitive receptor is expected to exceed the Air Pollution Exposure Zone criteria for annual average PM_{2.5} concentrations and excess cancer risk, so impacts are expected to remain significant and unavoidable with mitigation, although somewhat reduced as compared to the Hub Plan.

Cumulative impacts related to PM_{2.5} concentrations and toxic air contaminants under Alternatives A, B, and C would be similar to the Hub Plan. PM_{2.5} concentrations would be attributed largely to existing background levels, and excess cancer risk values would be above BAAQMD's significance thresholds. Mitigation Measures M-AQ-4a, M-AQ-4b, M-AQ-5a, M-AQ-5b, M-AQ-5c, and M-AQ-7a through M-AQ-7e would still be required under Alternatives A, B, and C. Even with implementation of these mitigation measures, cumulative impacts would result in significant cumulative impacts to existing sensitive receptors and this impact would be significant and unavoidable with mitigation, although somewhat reduced compared to the Hub Plan because of less overall development.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

The 30 Van Ness Avenue Project would not conflict with or obstruct implementation of the 2017 Clean Air Plan and would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status. It would also result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. Mitigation Measures M-AQ-9a and M-AQ-9b would reduce impacts to less than significant. See Section 3.D, Air Quality, Impacts AQ-1, AQ-6, AQ-9, and AQ-10, for a detailed description of the 30 Van Ness Avenue Project's impacts.

Under Alternative D (30 Van Ness Avenue No Project Alternative), the proposed building at 30 Van Ness Avenue would not be developed and the existing conditions at the project site would remain unchanged. Alternative D would not include demolition or construction activities on the project site, and, consequently, no new sources of air pollutants would be introduced. Existing

stationary sources of air pollution on or near the project site and major roadways contributing to air pollution in the project vicinity would remain as they are under existing conditions. Thus, Alternative D would not contribute to any potential impact related to air quality, resulting in no impact, which is less than the impact of the proposed project.

Alternative E (30 Van Ness Avenue Reduced Intensity Alternative) would result in less construction compared to the proposed 30 Van Ness Avenue Project. Construction of the project under Alternative E is expected to last approximately 32 months, compared to the approximately 43-month construction duration analyzed for the proposed 30 Van Ness Avenue Project. The expansion of the existing office and retail use would be substantially offset by the large decrease in residential space on the project site compared to the proposed 30 Van Ness Avenue Project. The change in land use for Alternative E would also result in a reduction in net trip generation rate, as shown in **Table 5-5**, p. 5-35, resulting in lower CAP and TAC emissions due to project traffic compared to the proposed project. Under Alternative E, the emergency diesel generators would remain unchanged from the proposed 30 Van Ness Avenue Project; thus, CAP and TAC emissions associated with the diesel emergency generators would be the same as the 30 Van Ness Avenue Project.

CONSTRUCTION

The estimated construction-related CAP emissions for Alternative E would not exceed the applicable construction-related mass emissions significance thresholds for reactive organic gases, nitrogen oxides, and particulate matter. Thus, under the more limited construction program of Alternative E, total CAP emissions attributable to construction activities would be reduced in comparison to the proposed 30 Van Ness Avenue Project. With a reduced construction program, average daily construction emissions and annual emissions would be reduced from those of the proposed 30 Van Ness Avenue Project, although Mitigation Measure M-AQ-9a would still be required. This was determined by comparing the total construction square footage per month for Alternative E and the proposed 30 Van Ness Avenue Project, assuming construction emissions are directly proportional to new square footage. Additionally, because Alternative E would not overlap with onsite operational activities, and because construction activities would be less than that proposed for the 30 Van Ness Avenue Project, it is expected that average daily construction emissions would not exceed the BAAQMD significance thresholds, resulting in a less-than-significant impact with implementation of Mitigation Measure M-AQ-9a, similar to the proposed 30 Van Ness Avenue Project, although somewhat reduced.

OPERATION

The air quality impacts associated with estimated operational emissions for CAPs for the proposed 30 Van Ness Avenue Project would not exceed the applicable significance thresholds for reactive organic gases, nitrogen oxides, and particulate matter. Because of the reduced land

use program under Alternative E (e.g., reduced building square footage), and assuming mitigation measures (M-AQ-9b) similar to those of the proposed 30 Van Ness Avenue Project would be applied, there would be fewer area and building energy sources of emissions, and, consequently, lower operational emissions compared to the proposed 30 Van Ness Avenue Project. Alternative E would also generate fewer vehicle trips and thus reduce mobile emissions, as shown in **Table 5-5**, p. 5-35. Alternative E would generate a total of 1,254 vehicle trips per day compared to 2,080 vehicle trips per day for the proposed 30 Van Ness Avenue Project. This is a reduction in net trip generation rate by approximately 40 percent. As a result, the average daily CAP emissions attributable to project operations under Alternative E are expected to be reduced compared to the proposed 30 Van Ness Avenue Project, and, like the proposed 30 Van Ness Avenue Project, are expected to result in a less-than-significant impact, although somewhat reduced.

TOXIC AIR CONTAMINANTS

Similar to the proposed 30 Van Ness Avenue Project, construction and operation of Alternative E would generate TACs, including diesel particulate matter. Under Alternative E, the emergency generators to be installed would be similar to those installed under the proposed 30 Van Ness Avenue Project. Therefore, assuming similar mitigation measures (M-AQ-9a and M-AQ-9b) as the proposed 30 Van Ness Avenue Project, the impacts from the generators under Alternative E would be the same as impacts in the proposed 30 Van Ness Avenue Project. As noted above, Alternative E would generate approximately 40 percent fewer vehicle trips per day than the proposed 30 Van Ness Avenue Project. Thus, under the reduced construction and land use programs of Alternative E, less total construction and operational PM_{2.5} and diesel particulate matter would be generated than under the proposed 30 Van Ness Avenue Project, and the maximum health risks for Alternative E are expected to be less than the maximum health risks from the proposed 30 Van Ness Avenue Project. Even though Alternative E is expected to result in lower health risk impacts, project contributions under Alternative E, when added to background values, would still result in a significant health risk impact at the maximally exposed offsite sensitive receptor, although somewhat reduced compared to the proposed project. Risk contribution from Alternative E was determined by individually scaling the maximum risk for construction and operational sources by the construction square footage, or the net trip generator rate. As with the proposed 30 Van Ness Avenue Project, annual average PM_{2.5} concentrations would be attributed largely to existing background sources, and excess cancer risk values are expected to remain above BAAQMD's significance thresholds. Therefore, like the proposed 30 Van Ness Avenue Project, the maximally exposed offsite sensitive receptor location is expected to exceed the Air Pollution Exposure Zone criteria for annual average PM_{2.5} concentrations and excess cancer risk, however impacts would be reduced to less than significant with mitigation.

Cumulative impacts related to PM_{2.5} concentrations and toxic air contaminants under Alternative E would be less than the proposed project because less total construction and operational PM_{2.5} and diesel particulate matter would be generated than under the proposed 30 Van Ness Avenue Project, and the maximum health risks for Alternative E are expected to be less than the maximum health risks from the proposed 30 Van Ness Avenue Project. Mitigation Measures M-AQ-9a, and M-AQ-9b would still be required under Alternative E. With implementation of these mitigation measures, cumulative impacts would be reduced to less than significant.

98 FRANKLIN STREET PROJECT ALTERNATIVES

The 98 Franklin Street Project would not conflict with or obstruct implementation of the 2017 Clean Air Plan and would not result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status. It would also result in emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants. Mitigation Measures M-AQ-5c and M-AQ-9c would reduce impacts to less than significant. See Section 3.D, Air Quality, Impacts AQ-1, AQ-6, AQ-9, and AQ-10, for a detailed description of the 98 Franklin Street Project's impacts.

Under Alternative F (98 Franklin Street No Project Alternative), the proposed building at 98 Franklin Street would not be developed and the existing conditions, which include approximately 100 surface parking spots, would remain unchanged. Alternative F would not include demolition or construction activities on the project site, and, consequently, no new sources of air pollutants would be introduced. Existing stationary sources of air pollution on or near the project site and major roadways contributing to air pollution in the project vicinity would remain as they are under existing conditions. Thus, Alternative F would not contribute to any potential cumulative impact related to air quality, resulting in no impact, which is less than the impact of the proposed project.

Alternative G (98 Franklin Street Reduced Intensity Alternative) proposes to build a 162,358-square-foot building that would retain all the land uses in the proposed 98 Franklin Street Project, but with a reduced gross square footage, as shown in **Table 5-3**, p. 5-27. Alternative G proposes to reduce the residential and parking area but would retain the total square footage for school and parking land uses. As a result, under Alternative G, there would be less construction compared to the proposed 98 Franklin Street Project. The construction duration for Alternative G is 20 months compared to the 26-month construction duration for the 98 Franklin Street Project. Overall, Alternative G would result in a reduction in total gross square feet of floor area of approximately 70 percent. Alternative G includes one 450–500 kW emergency generator, which is significantly smaller than the emergency generator equipment analyzed in the proposed 98 Franklin Street Project.

CONSTRUCTION

The estimated construction-related CAP emissions for the proposed 98 Franklin Street Project would not exceed the applicable construction-related mass emissions significance thresholds for reactive organic gases, nitrogen oxides, and particulate matter. Thus, under the more limited construction program of Alternative G, total CAP emissions attributable to construction activities would be reduced in comparison to the proposed 98 Franklin Street Project. With a reduced construction program, average daily and annual construction emissions would also be reduced from those of the proposed 98 Franklin Street Project. This was determined by comparing the total construction square footage per month for Alternative G and the proposed 98 Franklin Street Project, assuming construction emissions are directly proportional to new square footage. Additionally, because Alternative G would not overlap with onsite operational activities, and because construction activities would be limited compared to the proposed 98 Franklin Street Project, it is expected that the average daily and annual construction emissions would not exceed the BAAQMD thresholds and would result in a less-than-significant impact, similar to the proposed 98 Franklin Street Project, although somewhat reduced.

OPERATION

The air quality impacts associated with estimated operational CAP emissions for the proposed 98 Franklin Street Project would not exceed the applicable significance thresholds for reactive organic gases, nitrogen oxides, and particulate matter. Because of the reduced land use program under Alternative G (e.g., reduced building square footage, smaller diesel emergency generator) and assuming similar mitigation measures (M-AQ-5c) as the proposed 98 Franklin Street Project, there would be fewer area, stationary, and building energy sources of emissions, and, consequently, lower operational emissions compared to the proposed project. Alternative G would also generate fewer vehicle trips and thus lower mobile emissions. As shown in **Table 5-5**, p. 5-35, Alternative G would generate a total of 224 vehicle trips per day compared to 543 vehicle trips per day for the proposed 98 Franklin Street Project. This is a reduction in net trip generation rates by approximately 60 percent. As a result, the average daily CAP emissions attributable to project operations under Alternative G would be reduced compared to the proposed 98 Franklin Street Project, and like the proposed 98 Franklin Street Project, are expected to result in a less-than-significant impact, although somewhat reduced.

TOXIC AIR CONTAMINANTS

Similar to the proposed project, construction and operation of Alternative G would generate TACs, including diesel particulate matter. Under Alternative G, a smaller emergency generator would be installed on the project site compared to the proposed 98 Franklin Street Project. Therefore, assuming similar mitigation measures (M-AQ-5c) as those proposed for the 98 Franklin Street Project would be applied to Alternative G, the impacts from the generator would be lower than the impacts in the proposed 98 Franklin Street Project. As noted above,

Alternative G would generate approximately 60 percent fewer vehicle trips per day than the proposed 98 Franklin Street Project. Thus, under the reduced construction and land use programs of Alternative G, less total construction and operational PM_{2.5} and diesel particulate matter would be generated than under the proposed 98 Franklin Street Project, and the maximum health risks for Alternative G are expected to be less than the maximum health risks from the proposed 98 Franklin Street Project. Even though Alternative G is expected to result in lower health impacts, project contributions under Alternative G, when added to background values, are expected to remain a significant health risk impact at the maximally exposed onsite and offsite sensitive receptors, although somewhat reduced compared to the proposed project. Risk contribution from Alternative G was determined by individually scaling the maximum risk for construction and operational sources by the construction square footage, or the net trip generator rate. As with the proposed 98 Franklin Street Project, annual average PM_{2.5} concentrations would be attributed largely to existing background sources, and excess cancer risk values are expected to remain above BAAQMD's significance thresholds. Therefore, like the proposed 98 Franklin Street Project, the maximally exposed on- and offsite sensitive receptor locations are expected to exceed the Air Pollution Exposure Zone criteria for annual average PM_{2.5} concentrations and excess cancer risk; therefore, impacts would be reduced to less than significant with mitigation.

Cumulative impacts related to PM_{2.5} concentrations and toxic air contaminants under Alternative G would be less than the proposed project because less total construction and operational PM_{2.5} and diesel particulate matter would be generated than under the proposed 98 Franklin Street Project, and the maximum health risks for Alternative G are expected to be less than the maximum health risks from the proposed 98 Franklin Street Project. Mitigation Measures M-AQ-5c and M-AQ-9c would still be required under Alternative G. With implementation of these mitigation measures, cumulative impacts would be reduced to less than significant.

WIND

THE HUB PLAN AND HUB HSD ALTERNATIVES

Subsequent development projects proposed in the Hub Plan area may combine building exposure, massing, and/or orientation in a way that could lead to an acceleration of wind speeds at the ground level. However, implementation of Mitigation Measures M-WI-1a and M-WI-1b would reduce the potential for a net increase in wind hazard exceedances and the hours of wind hazard exceedances through identification of methods to comply with section 148 and a specific maintenance plan to ensure that wind baffling features are maintained in perpetuity, thereby reducing this impact to a less-than-significant level. See Section 3.E, Wind, Impact WI-1, for a detailed description of the Hub Plan impacts.

Although future construction would still take place under Alternative A (Hub Plan and Hub HSD No Project Alternative), this alternative would not increase allowable building heights within the Hub Plan area, as analyzed in this EIR. The existing zoning and height and bulk controls in the Market and Octavia Area Plan would remain in place, with a general height limit of 85 feet or less, except at the intersections of Market Street/Van Ness Avenue and Mission Street/South Van Ness Avenue where towers ranging from 250 to 400 feet are currently allowed. In the Hub Plan area, with a few exceptions, most existing buildings are three to five stories in height (approximately 30 to 60 feet tall). A new building in the area at 85 feet or less would be the same as, or slightly taller than, existing buildings and, as a result, would have limited wind exposure. The potential increase in wind speeds would not be substantial, and it is unlikely that buildings that would be less than 85 feet in height would create wind hazard exceedances.³ Regardless, all buildings under Alternative A would be subject to Market and Octavia Area Plan Mitigation Measure B2 (Wind – New Construction) to reduce ground-level wind currents; buildings taller than 85 feet would also be subject to Mitigation Measure B1 (Wind – Buildings In Excess of 85 Feet in Height). Similar to the Hub Plan, Alternative A would result in a less-than-significant wind impact with mitigation (Impact WI-1). In addition, although Alternative A would most likely reduce the Hub Plan's significant and unavoidable cumulative wind impact with mitigation (Impact C-WI-1) because of the generally lower building heights, the impacts would not be eliminated and, therefore, considered significant and unavoidable.

Wind impacts would be essentially the same under Alternative B (Hub Plan Land Use Plan Only Alternative) as under the Hub Plan. Alternative B would allow for development at the same heights and same locations as under the Hub Plan; only the proposed streetscape and street network improvements would be excluded. Similar to the Hub Plan, implementation of Mitigation Measures M-WI-1a and M-WI-1b would be required under Alternative B to reduce the impact to less than significant with mitigation (Impact WI-1). Because of the comparable development assumptions, cumulative impacts related to Alternative B would be significant and unavoidable, the same as the Hub Plan.

Alternative C (Hub Plan Reduced Intensity Alternative) would reduce building heights at five locations, as described above, by reducing upzoning at the following sites by 20 feet: 1 and 10 South Van Ness Avenue, 1500–1540 Market Street, 30 Van Ness Avenue, and 33 Gough Street. These building heights would range from 230 feet to 630 feet high. These height decreases are not expected to significantly reduce wind effects because the upper floors of tall buildings are not the parts of buildings that greatly affect wind speeds, and the impacts of wind under Alternative C would be similar to those under the Hub Plan. Implementation of Mitigation Measures M-WI-1a and M-WI-1b would be required under

³ RWDI, *Market/Octavia Hub Plan Memorandum*, final, June 3, 2019.

Alternative C to reduce the impact to less than significant with mitigation (Impact WI-1). Cumulative impacts associated with Alternative C would be significant and unavoidable with mitigation, similar to the Hub Plan.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

The 30 Van Ness Avenue Project would result in no net increase of test locations exceeding the wind hazard criterion. In addition, the total number of hours with hazardous wind conditions would decrease under the 30 Van Ness Avenue Project, resulting in less-than-significant impacts with mitigation. See Section 3.E, Wind, Impact WI-2, for a detailed description of the 30 Van Ness Avenue Project impacts.

Under Alternative D (30 Van Ness Avenue No Project Alternative), the 30 Van Ness Avenue Project would not be constructed, and the building would be retained at its existing height. This would avoid the less-than-significant wind impact with mitigation under the 30 Van Ness Avenue Project, resulting in no impact under Alternative D. No mitigation would be required.

Alternative E (30 Van Ness Avenue Reduced Intensity Alternative) would include construction of an 11-story building (150 feet in height, compared to 520 feet under the proposed project). This would reduce the wind impact of the 30 Van Ness Avenue Project, but the impact would most likely not be completely avoided because Alternative E would still exceed the heights that are typically assumed to affect wind conditions. Similar to the 30 Van Ness Avenue Project, assuming implementation of Mitigation Measure M-WI-1b, Alternative E would be expected to result in less-than-significant wind impacts with mitigation.

98 FRANKLIN STREET PROJECT ALTERNATIVES

The 98 Franklin Street Project would result in a slight net decrease of test locations exceeding the wind hazard criterion. In addition, the total number of hours with hazardous wind conditions would decrease under the 98 Franklin Street Project, resulting in less-than-significant impacts with mitigation. See Section 3.E, Wind, Impact WI-2, for a detailed description of the 98 Franklin Street Project impacts.

Under Alternative F (98 Franklin Street No Project Alternative), the 98 Franklin Street Project would not be constructed, and the parking lot would be retained. Therefore, the slight reduction in the number of wind test locations exceeding the wind hazard criterion that would occur under the proposed project would not occur under Alternative F. Regardless, wind conditions under Alternative F would not change compared to existing conditions; therefore, this alternative would result in no impact.

Alternative G (98 Franklin Street Reduced Intensity Alternative) would construct a 10-story building (120 feet in height, as compared to 365 feet under the proposed project). This would reduce the 98 Franklin Street Project's less-than-significant wind impact with mitigation, but the impact would not be completely avoided because Alternative G would still exceed the heights

that typically affect wind conditions. Similar to the 98 Franklin Street Project, assuming implementation of Mitigation Measure M-WI-1b, Alternative G would result in less-than-significant wind impacts with mitigation.

SHADOW

THE HUB PLAN AND HUB HSD ALTERNATIVES

The Hub Plan would generate net new shadow on each of the open spaces analyzed and on public streets and sidewalks. In total, 15 existing parks would be affected by the Hub Plan. There are no feasible mitigation measures that would reduce shadow impacts from the Hub Plan on McCoppin Hub, resulting in significant and unavoidable impacts. See Section 3.F, Shadow, Impact SH-1, for a detailed description of the Hub Plan impacts.

Alternative A (Hub Plan and Hub HSD No Project Alternative) would most likely result in significant and unavoidable shadow impacts similar to those of the Hub Plan. Future construction would still take place under Alternative A, and although this alternative would not increase allowable building heights for future development within the Hub Plan area, new buildings could still result in substantial net new shadows on adjacent parks, including McCoppin Hub. Market and Octavia Area Plan Mitigation Measure A1 (Shadow – Parks and Open Space Not Subject to Section 295) would apply to new buildings that would exceed 50 feet in height and shade open space areas that are not subject to section 295. However, implementation of this mitigation measure would reduce, but may not eliminate, potential shadow impacts. Alternative A, therefore, would result in significant and unavoidable shadow impacts (Impacts SH-1 and C-SH-1) on McCoppin Hub, similar to those associated with the Hub Plan.

Shadow impacts would be the same under Alternative B (Hub Plan Land Use Plan Only Alternative) as under the Hub Plan because this alternative would allow for development at the same heights and locations. Only the proposed streetscape and street network improvements would be excluded, which would result in no changes to shadow effects. Alternative B, therefore, would result in the same significant and unavoidable shadow impacts as the Hub Plan (Impacts SH-1 and C-SH-1) on McCoppin Hub. No mitigation measures would reduce these impacts to a less-than-significant level, and shadow impacts under Alternative B would be the same as the Hub Plan: significant and unavoidable.

Alternative C would reduce building heights by 20 feet at five locations: 1 and 10 South Van Ness Avenue, 1500–1540 Market Street, 30 Van Ness Avenue, and 33 Gough Street. In addition, Alternative C may limit heights of other future projects throughout the Hub Plan area because of the requirement that calls for all projects involving historic resources within the Hub Plan area to conform to the Secretary of the Interior's Standards for Rehabilitation. These building heights would range from 230 feet to 630 feet (as compared to 250 feet to 650 feet under the proposed project). These height decreases would reduce shadow impacts compared to the Hub Plan. The height reductions at all of the above-listed sites, except for 33 Gough Street, would reduce the less-

than-significant shadow impacts on Patricia's Green, while the height reduction at 33 Gough Street would reduce significant shadow impacts on McCoppin Hub. These reductions in shadow under Alternative C would reduce individual and cumulative shadow effects for the Hub Plan; however, shadow effects would remain significant and unavoidable on McCoppin Hub (Impacts SH-1 and C-SH-1). No feasible mitigation measures would reduce these impacts to a less-than-significant level.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

The 30 Van Ness Avenue Project would generate net new shadow on nearby open spaces, public streets, and sidewalks. In total, eight existing parks would experience increased shadow impacts from the 30 Van Ness Avenue Project, resulting in less-than-significant impacts. See Section 3.F, Shadow, Impact SH-2, for a detailed description of the 30 Van Ness Avenue Project impacts.

Alternative D (30 Van Ness Avenue No Project Alternative) would eliminate the less-than-significant shadow impacts (Impacts SH-2 and C-SH-2) on eight existing parks. Alternative D would not construct a building and would retain the existing 75-foot building, resulting in no new shadow impacts. Alternative E (30 Van Ness Avenue Reduced Intensity Alternative) would construct a substantially shorter building than the 30 Van Ness Avenue Project (11 stories compared to 45 stories); however, the eight existing parks could still experience some minor increases in shadow. Regardless, because of the reduced height of Alternative E, this impact would be less than significant, and no mitigation would be necessary.

98 FRANKLIN STREET PROJECT ALTERNATIVES

The 98 Franklin Street Project would result in net new shadow cast on the Page and Laguna Mini Park, Patricia's Green, the proposed 11th/Natoma Park Site, and public streets and sidewalks, resulting in less-than-significant impacts. See Section 3.F, Shadow, Impact SH-2, for a detailed description of the 98 Franklin Street Project impacts.

Alternative F (98 Franklin Street No Project Alternative) would eliminate the less-than-significant shadow impacts (Impacts SH-2 and C-SH-2) from the 98 Franklin Street Project. Alternative F would not construct the proposed building but would instead retain the existing parking lot, avoiding all shadow impacts at Page and Laguna Mini Park, Patricia's Green, and 11th/Natoma Park (future) and on public streets and sidewalks. Alternative G (98 Franklin Street Reduced Intensity Alternative) would reduce the less-than-significant shadow impacts from the 98 Franklin Street Project. This alternative would construct a 10-story building compared to the proposed 36-story building, which would reduce shadow impacts at the same parks/open space areas. Alternative G would result in less-than-significant shadow impacts, similar to the 98 Franklin Street Project, and no mitigation would be necessary.

ISSUES ANALYZED IN THE INITIAL STUDY

IMPACTS RELATED TO THE INTENSITY OF DEVELOPMENT

THE HUB PLAN AND HUB HSD ALTERNATIVES

Given that Alternative A (Hub Plan and Hub HSD No Project Alternative) would have a reduced intensity of development (reduced number of households and residential population) compared to the Hub Plan, it is expected that impacts would be reduced in the areas of land use and planning, utilities and service systems, public services, population and housing, greenhouse gas emissions, and recreation (discussed in the initial study [see Appendix B]). These impacts would be less than significant, as with the proposed Hub Plan.

Similarly, given that Alternatives B (Hub Plan Land Use Plan Only Alternative) and C (Hub Plan Reduced Intensity Alternative) would have a similar or less-intense development plan (fewer than or the same number of households and commercial uses) compared to the Hub Plan, it is expected that impacts would be the same as or less than those of the Hub Plan in the areas of land use and planning, utilities and service systems, public services, population and housing, recreation, and greenhouse gas emissions. All of these impacts would be *less than significant*, as with the Hub Plan.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

Alternative D (30 Van Ness Avenue No Project Alternative) would eliminate the 30 Van Ness Avenue Project, while Alternative E (30 Van Ness Avenue Reduced Intensity Alternative) would significantly reduce the size of the 30 Van Ness Avenue Project. Both alternatives would significantly reduce the amount of housing and employment resulting from the project, thereby reducing residential uses and overall development intensity in the Hub Plan area and at 30 Van Ness Avenue. Impacts under Alternatives D and E related to land use and planning, utilities and service systems, public services, population and housing, greenhouse gas emissions, and recreation (discussed in the initial study [see Appendix B]) would be less substantial than those of the 30 Van Ness Avenue Project, given the reduced development intensity. These impacts would be *less than significant*, as with the 30 Van Ness Avenue Project.

98 FRANKLIN STREET PROJECT ALTERNATIVES

Alternative F (98 Franklin Street No Project Alternative) would eliminate the 98 Franklin Street Project, while Alternative G (98 Franklin Street Reduced Intensity Alternative) would significantly reduce the size of the 98 Franklin Street Project. Both alternatives would reduce the amount of housing and employment resulting from the project, greatly reducing residential uses and overall development intensity in the Hub Plan area and at 98 Franklin Street. Impacts under Alternatives F and G related to land use, utilities and service systems, public services, population and housing, greenhouse gas emissions, open space, and

recreation (discussed in the initial study [see Appendix B]) would be less substantial than those of the 98 Franklin Street Project, given the reduced development intensity. These impacts would be *less than significant*, as with the 98 Franklin Street Project.

IMPACTS RELATED TO SITE-SPECIFIC CONDITIONS

THE HUB PLAN AND HUB HSD ALTERNATIVES

Impacts under Alternatives A, B, and C related to site-specific conditions, such as those pertaining to biology, geology and soils, hydrology and water quality, land use, aesthetics, and hazardous materials, would be similar to or less severe than those of the Hub Plan. Because future development in the Hub Plan area, regardless of density, would likely cover the majority of the land area on a given project site, variations on density and height would not significantly change the severity of most impacts. For example, a project's impact on street trees (biological resources) or amount of pervious/impervious surfaces (hydrology and water quality) would typically not change if the project were 10 stories or 30 stories. In the majority of instances, a project of any height could involve disturbance of onsite or adjacent offsite vegetation or could result in changes to the impervious surfaces.

Alternative A would result in ground-disturbing activities associated with build-out of the Market Octavia Area Plan and, regardless of density, could result in similar impacts to those of the Hub Plan. However, because Alternative A does not include streetscape and street network improvements, a smaller area would be affected and, thus, overall impacts would be expected to be slightly less severe under Alternative A than under the Hub Plan. Alternative B is similar to Alternative A in that sites throughout the area would be subject to ground-disturbing activities but would not include the streetscape and street network improvements proposed under the Hub Plan. Thus, overall impacts related to ground-disturbing activities, such as impacts related to geology and soils, paleontology, and hydrology and water quality, would be slightly less severe than they would be under the Hub Plan. Development pursuant to Alternative C would be nearly the same as under the Hub Plan, with the exception of slightly lowered building heights at five project sites and the elimination of one site, as discussed above. However, as mentioned above, it is not anticipated that increased height of development on a given site would result in more severe impacts related to ground disturbance. As such, Alternative C would result in similar ground-disturbing impacts when compared to the Hub Plan.

Although ground disturbance associated with Alternatives A, B, and C would be similar to or less than that of the Hub Plan, impacts related to excavation and foundation systems could vary slightly. Alternative A could result in less-intensive excavation activities because overall development in the Hub Plan area would be reduced, resulting in possibly fewer projects, shorter construction timeframes, and reduced intensity. Alternative B would also result in less-intensive excavation activities because it would not include the ground disturbances necessary for construction of the streetscape and street network improvements, as described above. Likewise, Alternative C would result in less-intensive excavation activities, shorter construction

timeframes, and less intensity because it would eliminate the availability of one project site (99 South Van Ness Avenue) and shorten other buildings in the Hub Plan area. Therefore, impacts of Alternatives A, B, and C related to tribal cultural resources and geology and soils would be slightly less than under the Hub Plan. The following mitigation measures, included in the initial study, would be applicable to Alternatives A, B, and C, as with subsequent development projects under the Hub Plan and Hub HSD: Mitigation Measures M-TCR-1, M-GE-1, M-BI-1, and M-BI-2 as well as Improvement Measure I-BI-2. With implementation of these mitigation measures, impacts would be less than significant.

In the case of biological resources, the impacts of Alternatives A, B, and C would be less than significant with mitigation, as with the Hub Plan, because the overall level of development under these alternatives would be similar to or slightly less than that of the Hub Plan. Likewise, impacts on geology, greenhouse gases, hydrology and water quality, hazards and hazardous materials, and energy under Alternatives A, B, and C would be less than significant, as with the Hub Plan, because development would be similar to or slightly less than that of the Hub Plan. No impacts on mineral resources or agricultural or forestry resources would occur under Alternatives A, B, and C, as with the Hub Plan, because, there are no such resources in the Hub Plan area.

Impacts from Alternatives A, B, and C related to aesthetics and land use would be less severe than those of subsequent development projects pursuant to the Hub Plan and Hub HSD. Impacts would be less severe under Alternative A compared to the Hub Plan because building height limits would not increase and land use allowances would not change. Under Alternative B, streetscape and street network improvements would not occur, resulting in less severe impacts compared to the Hub Plan. Under Alternative C, development intensity would be reduced at five sites and eliminated at one site, resulting in less severe impacts compared to the Hub Plan. As with the Hub Plan and Hub HSD, impacts from Alternatives A, B, and C related to aesthetics and land use would be less than significant.

30 VAN NESS AVENUE PROJECT ALTERNATIVES

Impacts of Alternative D related to site-specific conditions, such as those related to aesthetics, land use, tribal cultural resources, biological resources, geology and soils, hydrology and water quality, and hazards and hazardous materials, would be eliminated because the building would not be constructed. Alternative D would result in elimination of all ground-disturbing activities, including excavation of two basement levels with the project, at 30 Van Ness Avenue. Therefore, impacts of Alternative D on tribal cultural resources and geology and soils would be eliminated when compared to the 30 Van Ness Avenue Project. No impacts would occur, and no mitigation would be necessary under Alternative D.

Impacts of Alternative E related to site-specific conditions, such as those related to aesthetics, land use, tribal cultural resources, biological resources, geology and soils, hydrology and water quality, and hazards and hazardous materials, would be similar to those of the project but slightly reduced because development pursuant to Alternative E would reduce the height and eliminate the residential component of the 30 Van Ness Avenue Project. This would result in less overall construction, shorter construction time periods, less excavation, and less development intensity. It is not anticipated that foundation systems (and, therefore, ground-disturbing activities) would be substantially different from such systems under the project; however, ground-disturbing activities would be reduced because Alternative E would require excavation for one basement level instead of two basement levels. Therefore, the impacts of Alternative E on tribal cultural resources and geology and soils would be less than they would be under the 30 Van Ness Avenue Project. The following mitigation measures, included in the initial study, would be applicable to Alternative E, as with the 30 Van Ness Avenue Project: Mitigation Measures M-TCR-1, M-GE-1, M-BI-1, and M-BI-2 as well as Improvement Measure I-BI-2. This would result in less-than-significant impacts with implementation of mitigation measures.

As with the 30 Van Ness Avenue Project, Alternative E would have less-than-significant impacts related to energy and no impacts on mineral resources or agricultural or forestry resources because none are present within the Hub Plan area.

98 FRANKLIN STREET PROJECT ALTERNATIVES

Impacts of Alternative F related to site-specific conditions, such as those related to aesthetics, land use, tribal cultural resources, biological resources, geology and soils, hydrology and water quality, and hazards and hazardous materials, would be eliminated because the building would not be constructed. Alternative F would result in elimination of all ground-disturbing activities, including excavation of two basement levels with the project, at 98 Franklin Street. Therefore, impacts of Alternative F on tribal cultural resources and geology and soils would be eliminated when compared to the 98 Franklin Street Project. No impacts would occur, and no mitigation would be necessary under Alternative F.

Impacts of Alternative G related to site-specific conditions, such as those related to aesthetics, land use, tribal cultural resources, biological resources, geology and soils, hydrology and water quality, and hazards and hazardous materials, would be similar to those of the project but slightly reduced because development pursuant to Alternative G would reduce the height and the residential component of 98 Franklin Street Project. This would result in less overall construction, shorter construction time periods, less excavation, and less development intensity. It is not anticipated that foundation systems (and, therefore, ground-disturbing activities) would be substantially different from such systems under the project; however, ground-disturbing activities would be reduced because Alternative G would require excavation for one basement level instead of two basement levels. Therefore, impacts of Alternative G on tribal

cultural resources as well as geology and soils would be less than they would be under the 98 Franklin Street Project. The following mitigation measures, included in the initial study, would be applicable to Alternative G, as with the 98 Franklin Street Project: Mitigation Measures M-TCR-1, M-GE-1, M-BI-1, and M-BI-2 as well as Improvement Measure I-BI-2. This would result in less-than-significant impacts with implementation of mitigation measures.

As with the 98 Franklin Street Project, Alternative G would have less-than-significant impacts related to energy and no impacts on mineral resources or agricultural or forestry resources because none are present within the Hub Plan area.

COMPARISON OF ALTERNATIVES AND ENVIRONMENTALLY SUPERIOR ALTERNATIVE

COMPARISON AND SUMMARY OF ALTERNATIVES' IMPACTS AND ABILITY TO MEET PROJECT OBJECTIVES

The impacts of each of the seven alternatives and their ability to meet the project objectives compared to the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub HSD are summarized in detail below in **Table 5-6**, p. 5-65, as well as **Table S-3**, p. S-75. All of the alternatives are considered potentially feasible for the purposes of this EIR, as required by CEQA Guidelines section 15126.6(a). With the exception of Alternatives D and F, each of the alternatives would meet the basic project objectives, although some of the alternatives would only partially meet some of the objectives.

ALTERNATIVE A – HUB PLAN AND HUB HSD NO PROJECT ALTERNATIVE

Alternative A would likely avoid or reduce some—but not all—of the significant impacts identified for the Hub Plan because it would rely on a program of reduced development intensity that is currently in place under the Market and Octavia Area Plan. Alternative A assumes that growth in the Hub Plan area would occur with or without implementation of the Hub Plan, but that, absent implementation of the Hub Plan and Hub HSD, a smaller percentage of citywide growth would occur within the Hub Plan area. Because Alternative A would not increase the allowable building heights and density as the Hub Plan would, this alternative would very likely result in less development pressure for redevelopment of “underutilized” sites because there would be fewer development incentives. Therefore, while it is likely that Alternative A would substantially reduce all of the identified significant and unavoidable impacts and less-than-significant impacts with mitigation related to intensity of development under the Hub Plan (impacts on built-environment resources, noise, and shadow), it cannot be stated with certainty whether Alternative A would substantially reduce or avoid any of the identified impacts because development would continue to occur within the Hub Plan area under this alternative.

Alternative A would accommodate substantially less new housing than the Hub Plan and Hub HSD. As described above, Alternative A would result in approximately 80 percent fewer housing units than the Hub Plan and Hub HSD. As such, this alternative would be less successful than the Hub Plan in potentially creating housing in an area of the city that needs it.

Alternative A would not prioritize and facilitate the creation of housing in the same way that the Hub Plan and Hub HSD would (by defining neighborhood priorities and guiding growth and development in the area) and would not provide incentives to “maintain a strong preference for housing as a desired use.” Because Alternative A would not include the Hub Plan’s proposed reconfigurations for major streets and intersections (including those that incentivize people walking, biking, and using transit) or public street and public space improvements, subsequent development projects under Alternative A would not necessarily “establish a functional, attractive, and well-integrated system of public streets and open spaces;” “reconfigure major streets and intersections to make them safer for people walking, bicycling, and driving;” or “take advantage of opportunities to create public spaces” in the Hub Plan area. Without the Hub Plan’s proposed zoning changes, designation of the Hub as an HSD, and building height increases, Alternative A would not “encourage residential towers on selected sites” to the degree that it would under the Hub Plan and Hub HSD, nor would it prioritize high-density housing development over other potential development to the degree that it would under the Hub Plan and Hub HSD. Accordingly, Alternative A would only partially meet the project objectives. Alternative A would, however, continue to reflect the objectives established in the Market and Octavia Area Plan because it would maintain the same zoning controls and policies outlined in the plan.

ALTERNATIVE B – LAND USE PLAN ONLY PLAN ALTERNATIVE

Alternative B would have slightly fewer impacts than the Hub Plan at the program level because, although the development program assumptions would be the same, the streetscape and street network improvements would not be implemented. This would reduce impacts associated with construction (transportation, noise, and air quality), and eliminate the built-environment impact on the AWSS because no work would be conducted in city streets.

Alternative B would meet most of the project objectives of the Hub Plan because it would follow the same development program, on the same 18 sites, and at the same heights and densities. Uses and overall projected residential growth under this alternative would be the same. However, because Alternative B would not provide the streetscape and street network improvements in the Hub Plan area that are proposed under the Hub Plan, street network and circulation under this alternative would not as prioritize people walking, biking, and using transit as effectively as the Hub Plan. Therefore, this alternative would not meet the Hub Plan’s specific objectives to “establish a functional, attractive, and well-integrated system of public streets and open spaces;” “reconfigure major streets and intersections to make them safer for people walking, bicycling, and driving;” and “take advantage of opportunities to create public spaces”. Therefore, Alternative B would be partially consistent with the project objectives of the Hub Plan.

TABLE 5-6. SUMMARY OF ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Objectives	The Hub Plan and Hub HSD	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Hub Plan Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	98 Franklin Street Proposed Project	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Hub Plan Objectives										
Create a vibrant mixed-use neighborhood.	Yes	Partially due to reduction in development intensity	Yes	Partially due to reduction in development intensity	NA	NA	NA	NA	NA	NA
Maintain a strong preference for housing as a desired use.	Yes	Partially due to reduction in development intensity	Yes	Partially due to reduction in development intensity	NA	NA	NA	NA	NA	NA
Encourage residential towers on selected sites.	Yes	Partially due to reduction in development intensity	Yes	Yes	NA	NA	NA	NA	NA	NA
Establish a functional, attractive, and well-integrated system of public streets and open spaces.	Yes	No	No	Yes	NA	NA	NA	NA	NA	NA
Reconfigure major streets and intersections to make them safer for people walking, bicycling, and driving.	Yes	No	No	Yes	NA	NA	NA	NA	NA	NA
Take advantage of opportunities to create public spaces.	Yes	No	No	Yes	NA	NA	NA	NA	NA	NA
Hub HSD Objectives										
To allow for ministerial approval of housing projects in the Hub Plan area.	Yes	No	Yes	Yes	NA	NA	NA	NA	NA	NA
To streamline environmental review of housing projects in the Hub Plan area.	Yes	No	Yes	Yes	NA	NA	NA	NA	NA	NA

TABLE 5-6. SUMMARY OF ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Objectives	The Hub Plan and Hub HSD	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Hub Plan Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	98 Franklin Street Proposed Project	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
30 Van Ness Avenue Project Objectives										
Create a high-density, mixed-use development that takes advantage of a prominent downtown location along routes for people riding public transit, people walking, and people bicycling by providing a range of residential unit types, office space, and neighborhood-serving retail.	NA	NA	NA	NA	Yes	No	No	NA	NA	NA
Contribute to implementation of the general plan housing element goals for affordable housing by constructing a high-density, mixed-use project, including sufficient office use, which would support the creation of affordable units.	NA	NA	NA	NA	Yes	No	No	NA	NA	NA
Transform the intersection of Market Street and Van Ness Avenue by creating an engaging and vibrant street level that offers a mix of retail uses that enlivens the area through a mix of day and nighttime uses within the project site.	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity	NA	NA	NA

TABLE 5-6. SUMMARY OF ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Objectives	The Hub Plan and Hub HSD	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Hub Plan Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	98 Franklin Street Proposed Project	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Develop an underused site, connecting the Civic Center, Mid-Market, and Hayes Valley neighborhoods.	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity	NA	NA	NA
Create a modern, creative, functional workplace environment that attracts office tenants and a residential tower design that maximizes views for residents.	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity	NA	NA	NA
Provide adequate vehicular parking and vehicular and (commercial and passenger) loading access to serve the needs of the project and its visitors.	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity	NA	NA	NA
98 Franklin Street Project Objectives										
Develop a new high school building for the International High School (grades 9–12 of FAIS) in proximity to FAIS’s other campus buildings near the intersection of Franklin and Oak streets in San Francisco’s Downtown/Civic Center neighborhood and in proximity to public transportation facilities.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Yes

TABLE 5-6. SUMMARY OF ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Objectives	The Hub Plan and Hub HSD	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Hub Plan Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	98 Franklin Street Proposed Project	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Replace an underutilized site with a vibrant mixed-use development, including an educational institution of long standing in the city.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity
Leverage the value of the 98 Franklin Street property by partnering with a residential developer to build housing in the air space above the school.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity
Develop a project that enhances the larger community and generally conforms to the objectives and policies of the Hub Plan.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity
Assist FAIS's efforts to develop a new building for the International High School on the lower five floors of the proposed building.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Yes
Increase the supply of housing near the Van Ness Avenue and Market Street intersection.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity

TABLE 5-6. SUMMARY OF ABILITY OF ALTERNATIVES TO MEET PROJECT OBJECTIVES

Objectives	The Hub Plan and Hub HSD	Alternative A: Hub Plan and Hub HSD No Project Alternative	Alternative B: Hub Plan Land Use Plan Only Alternative	Alternative C: Hub Plan Reduced Intensity Alternative	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative	98 Franklin Street Proposed Project	Alternative F: 98 Franklin Street No Project Alternative	Alternative G: 98 Franklin Street Reduced Intensity Alternative
Construct a substantial number of dwelling units, with 18 percent to be affordable for lower-income residents, to contribute to implementation of the general plan housing element goals and the Association of Bay Area Governments' Regional Housing Needs Allocation for the city.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity
Create a mixed-use project that is generally consistent with the land use, housing, open space, and other objectives and policies of the Hub Plan.	NA	NA	NA	NA	NA	NA	NA	Yes	No	Partially due to reduction in development intensity

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ALTERNATIVE C – HUB PLAN REDUCED INTENSITY ALTERNATIVE

Alternative C would avoid or reduce some—but not all—of the significant impacts identified for the Hub Plan because it would reduce the intensity of development in the Hub Plan area by reducing building heights at select sites. This alternative would lessen the severity of impacts identified as significant and unavoidable and less than significant with mitigation. These include:

- Built-environment resources impact (Impact CUL-3) of the Hub Plan
- Cumulative impact contribution on built-environment and historic resources (Impact C-CUL-1) of the Hub Plan
- Cumulative wind impact contribution (Impact C-WI-1) of the Hub Plan
- Shadow impact (Impact SH-1) of the Hub Plan
- Cumulative shadow impact contribution (Impact C-SH-1) of the Hub Plan
- Cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status during construction (Impact AQ-4) of the Hub Plan
- Cumulatively considerable net increase in criteria air pollutants for which the project region is in nonattainment status during operation (Impact AQ-5) of the Hub Plan
- Emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants that could expose sensitive receptors to substantial levels of toxic air contaminants (Impact AQ-7) under the Hub Plan
- Cumulative air quality impacts from (PM_{2.5}) and toxic air contaminants (Impact C-AQ-1) under the Hub Plan

Alternative C would not avoid any of the project-specific impacts from the streetscape and street network improvements, such as the built-environment impacts on the AWSS, because it would have the same project-level components as the project.

Alternative C would meet most of the project objectives of the Hub Plan, but it would reduce the development program, resulting in less overall residential growth in the Hub Plan area. As such, this alternative would be less successful than the Hub Plan at maximizing housing in an area of the city that needs it, creating “a vibrant mixed-use neighborhood,” and maintaining “a strong preference for housing as a desired use.” In addition, Alternative C would not prioritize and facilitate the creation of housing in the same way and to the same degree that the Hub Plan would. Therefore, Alternative C would be partially consistent with the project objectives of the Hub Plan.

ALTERNATIVE D – 30 VAN NESS AVENUE NO PROJECT ALTERNATIVE

Alternative D would avoid all of the project-specific impacts associated with the 30 Van Ness Avenue Project. This alternative would substantially lessen the severity of the following impacts, reducing them from significant and unavoidable or less than significant with mitigation to no impact:

- Construction noise and vibration impacts (Impacts NOI-2 and NOI-3)
- Cumulative construction noise impacts (Impact C-NOI-2)
- Cumulative wind impact contribution (Impact C-WI-1)
- Shadow impact (Impact SH-1)
- Cumulative shadow impact contribution (Impact C-SH-1)
- Archaeological impacts (Impacts CUL-4, CUL-5, and CUL-6)
- Cumulative archaeological impact contribution (Impact C-CUL-3)
- Emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants from construction and operational activities (Impact AQ-9)
- Cumulative air quality impacts from (PM_{2.5}) and toxic air contaminants (Impact C-AQ-2)

Alternative D would meet none of the project objectives of the 30 Van Ness Avenue Project. Under Alternative D, the proposed “high-density, mixed-use development” comprising housing units, commercial square footage, parking, and streetscape improvements at 30 Van Ness Avenue would not be implemented, resulting in less residential growth in the Hub Plan area and undermining the residential growth potential and needs of an area of the city that could accommodate it with nearby transit, job centers, services, and growth forecasts. Therefore, Alternative D would not meet or be consistent with any of the 30 Van Ness Avenue Project objectives.

ALTERNATIVE E – 30 VAN NESS AVENUE REDUCED INTENSITY ALTERNATIVE

At the project level, Alternative E would reduce some impacts identified as significant and unavoidable and less than significant with mitigation. This alternative would substantially lessen or avoid the severity of the following impacts associated with project-level actions:

- Cumulative wind impact contribution (Impact C-WI-1)
- Archaeological impacts (Impacts CUL-4, CUL-5, and CUL-6)
- Cumulative archaeological impact contribution (Impact C-CUL-3)
- Emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants from construction and operational activities (Impact AQ-9)
- Cumulative air quality impacts from (PM_{2.5}) and toxic air contaminants (Impact C-AQ-2)

Alternative E would meet some of the project objectives of the 30 Van Ness Avenue Project, although it would reduce the development program and residential uses at 30 Van Ness Avenue, resulting in less residential growth. The reduced intensity of Alternative E would not achieve the project's objectives to "create a high-density, mixed-use development;" "contribute to implementation of the general plan housing element goals for affordable housing by constructing a high-density, mixed-use project, including sufficient office use, which would support the creation of affordable units;" and create a "residential tower design that maximizes views for residents."

ALTERNATIVE F – 98 FRANKLIN STREET NO PROJECT ALTERNATIVE

At the project level, Alternative F would avoid all project-specific impacts associated with the 98 Franklin Street Project. This alternative would substantially lessen the severity of the following impacts, reducing them from significant and unavoidable or less than significant with mitigation to no impact:

- Construction noise and vibration impacts (Impacts NOI-2 and NOI-3)
- Cumulative construction noise impacts (Impact C-NOI-2)
- Archaeological impacts (Impacts CUL-4, CUL-5, and CUL-6)
- Cumulative archaeological impact contribution (Impact C-CUL-3)
- Cumulative wind impact contribution (Impact C-WI-1)
- Emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants from construction and operational activities (Impact AQ-9)
- Cumulative air quality impacts from (PM_{2.5}) and toxic air contaminants (Impact C-AQ-2)

Alternative F would meet none of the project objectives of the school and residential components of the 98 Franklin Street Project. Under Alternative F, the objectives of the 98 Franklin Street Project, to create a "mixed-use development," consisting of a "new high school building for the International High School" and "a substantial number of dwelling units;" contribute to the general plan housing element goals and the ABAG Regional Housing Needs Allocation for the city; and "increase the supply of housing near the Van Ness Avenue and Market Street intersection" at 98 Franklin Street, would not be fulfilled. Therefore, Alternative F would not be consistent with or meet the project objectives of the 98 Franklin Street Project.

ALTERNATIVE G – 98 FRANKLIN STREET REDUCED INTENSITY ALTERNATIVE

At the project level, Alternative G would not avoid any project-specific impacts because it would retain the same project-level components as the project, at a reduced rate. This alternative would, however, reduce some impacts identified as significant and unavoidable and less than significant with mitigation. This alternative would substantially lessen the severity of the following impacts associated with project-level actions:

- Archaeological impacts (Impacts CUL-4, CUL-5, and CUL-6)
- Cumulative archaeological impact contribution (Impact C-CUL-3)
- Cumulative wind impact contribution (Impact C-WI-1)
- Emissions of fine particulate matter (PM_{2.5}) and toxic air contaminants from construction and operational activities (Impact AQ-9)
- Cumulative air quality impacts from (PM_{2.5}) and toxic air contaminants (Impact C-AQ-2)

Alternative G would dampen the 98 Franklin Street Project's residential component objectives to create "a substantial number of dwelling units to contribute to the general plan housing element goals and the ABAG Regional Housing Needs Allocation for the city" and "increase the supply of housing near the Van Ness Avenue and Market Street intersection." Therefore, Alternative F would only partially meet the project objectives of the 98 Franklin Street Project.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The CEQA Guidelines require the identification of an environmentally superior alternative to the proposed project (section 15126.6[e]). Based on the analysis and comparison of the impacts of the alternatives presented above, this subsection identifies Alternatives A (Hub Plan and Hub HSD No Project Alternative), D (30 Van Ness Avenue No Project Alternative), and F (98 Franklin Street No Project Alternative) as the environmentally superior alternatives for each of the projects. As described above, Alternatives A, D, and F would do the most to substantially lessen the severity of the significant and unavoidable impacts and less-than-significant impacts with mitigation of the proposed projects related to development intensity under the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project, respectively. Alternative A would also avoid all project-specific impacts related to effects of streetscape and street network improvements. Although Alternatives A, D, and F would offer some environmental advantage over the Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project, significant and unavoidable adverse impacts could still occur under Alternative A because buildout of the area would still occur pursuant to Market and Octavia Area Plan controls but be avoided under Alternatives D and F. It is expected that Alternative A would substantially reduce all of the significant and unavoidable impacts and impacts reduced to less than significant levels with mitigation, but the exact level of impact reduction that would occur cannot be accurately predicted at the program level.

CEQA Guidelines section 15126.6(e)(2) provides that if the “no project” alternative is the environmentally superior alternative, the EIR should also identify an environmentally superior alternative among the other alternatives.

Among the alternatives to the Hub Plan, Alternative B would offer a lower level of impact by avoiding all of the project-specific impacts associated with the streetscape and street network improvements, specifically impacts on built-environment and historic resources and construction-related impacts. However, development intensity in the Hub Plan area would remain the same as the Hub Plan. Alternative C would provide a greater reduction in impacts on built-environment and historic resources and shadow by reducing development intensity in the Hub Plan area while retaining the streetscape and street network improvements. Alternative C would also meet more of the project objectives as compared to Alternative B. Therefore, among the Hub Plan alternatives, Alternative C is the environmentally superior alternative.

Among the 30 Van Ness Avenue Project and its alternatives, Alternative E would be considered the environmentally superior alternative because it would reduce impacts on built-environment and historic resources and shadow impacts when compared to the project while still meeting most of the project’s objectives.

Similarly, among the 98 Franklin Street Project and its alternatives, Alternative G would be considered the environmentally superior alternative because it would also reduce impacts on built-environment and historic resources and shadow impacts when compared to the project while still meeting most of the project’s objectives.

D. ALTERNATIVES CONSIDERED BUT REJECTED

In developing the Hub Plan, two individual development projects, and the Hub HSD, the project sponsors considered multiple alternative concepts/designs for development of the project area and the project sites within it, including numerous variations of reduced alternatives. The department reviewed these alternative concepts as potential strategies for reducing or avoiding the significant adverse impacts that were identified for the Hub Plan, two individual development projects, and the Hub HSD. In most cases, the alternative concepts were incorporated into one or more of the seven alternatives selected and analyzed, above. In some cases, however, alternative concepts either were determined to be infeasible, were determined to result in the same or more severe environmental impacts compared to those of the project, or were already covered within the range of selected alternatives. The alternatives considered but rejected and the reasons they have been rejected from further analysis are noted below.

ALTERNATIVE LOCATION

CEQA Guidelines section 15126.6(f)(2) states that alternative locations should be considered if they would avoid or substantially lessen any of the significant effects. For the location of the Hub Plan and Hub HSD, the department has concluded that no feasible alternative locations exist. No comparable plan areas in San Francisco make sense to create a housing priority area in the manner envisioned under the Hub Plan and Hub HSD. Therefore, this concept was rejected from further consideration.

DESIGN ALTERNATIVES

30 VAN NESS AVENUE PROJECT

The project sponsor considered and rejected a project that would be “code compliant” under the Hub Plan (a 120-foot office podium and a 400-foot residential tower) because it would not meet most of the project objectives or avoid the environmental impacts.

98 FRANKLIN STREET PROJECT

The project sponsor considered and rejected the following projects:

- A building at 85 feet (i.e., within current height limit), because it would be inconsistent with the policies and objectives of the proposed Hub Plan.
- A building at 180 feet, because it is anticipated that the project would not lessen any of the identified impacts, would involve increased excavation depths and soil volumes, and would still cast some shadows on public open spaces.
- A building at 320 feet (i.e., current height limit proposed in the Hub Plan), because it is anticipated that a project at that height would not lessen any of the identified impacts or materially decrease shadowing.

6. REPORT PREPARERS

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<https://sfplanning.org/environmental-review-documents>

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THE HUB PLAN¹ AND HUB HOUSING SUSTAINABILITY DISTRICT

CITYWIDE PLANNING DIVISION, PLANNING DEPARTMENT, CITY AND COUNTY OF SAN FRANCISCO

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Principal Planner:

Lily Langlois

Principal Planner:

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30 VAN NESS AVENUE PROJECT

30 VAN NESS DEVELOPMENT, LLC

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Samidha Thakral

Andy Wang

98 FRANKLIN STREET PROJECT

FRENCH AMERICAN INTERNATIONAL SCHOOL

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San Francisco, CA 94102

Aaron Levine

RELATED CALIFORNIA, LLC

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Matt Witte

Balint Simsik

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

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DRAFT ENVIRONMENTAL IMPACT REPORT

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District

Volume II – Initial Study and Appendices

PLANNING DEPARTMENT

CASE NOS. **2015-000940ENV, 2017-008051ENV, 2016-014802ENV**

STATE CLEARINGHOUSE NO. 2018052060



**SAN FRANCISCO
PLANNING
DEPARTMENT**

Draft EIR Publication Date:	July 24, 2019
Draft EIR Public Hearing Date:	August 29, 2019
Draft EIR Public Comment Period:	July 25, 2019 – September 9, 2019

Written comments should be sent to:

Elizabeth White, Senior Environmental Planner | 1650 Mission Street, Suite 400 | San Francisco, CA 94103 | CPC.HubPlanEIR@sfgov.org

**APPENDIX A: NOTICE OF PREPARATION AND
COMMENTS RECEIVED**

APPENDIX A-1

NOTICE OF PREPARATION



SAN FRANCISCO PLANNING DEPARTMENT

Notice of Preparation of an Environmental Impact Report

Date: May 23, 2018
Case Nos.: **2015-000940ENV, 2017-008051ENV, 2016-014802ENV**
Project Title: **The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)**
Zoning: Neighborhood Commercial (NCT-3) Use District; Downtown General Commercial (C-3-G) Use District; Hayes Neighborhood Commercial (Hayes NCT) Use District, and Public (P) Use District
Multiple Height and Bulk Districts (The Hub Plan and Hub HSD)
120/400 R-2 Height and Bulk District (30 Van Ness Avenue Project)
85-X Height and Bulk District (98 Franklin Street Project)
Block/Lot: Multiple Blocks and Lots (The Hub Plan and Hub HSD)
Block 0835/Lot 004 (30 Van Ness Avenue Project site)
Block 0836/Lots 008, 009, 013 (98 Franklin Street Project site)
Lot Size: 84 acres (The Hub Plan and Hub HSD)
38,100 square feet (30 Van Ness Avenue Project)
23,750 square feet (98 Franklin Street Project)
Project Sponsors: Lily Langlois, Planning Department (The Hub Plan and Hub HSD), (415) 575-9083
Andy Wang, 30 Van Ness Development, LLC
(30 Van Ness Avenue Project), (415) 995-4858
Matt Witte, Related California
(98 Franklin Street Project), (949) 697-8123
Lead Agency: San Francisco Planning Department
Staff Contact: Alana Callagy, (415) 575-8734, Alana.Callagy@sfgov.org

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INTRODUCTION

This notice provides a summary description of a proposed project for which the San Francisco Planning Department will be preparing an environmental impact report (EIR). The project consists of the planning department-proposed Hub Plan and related actions. The related actions associated with the Hub Plan are two individual private development projects within the Hub Plan area at 30 Van Ness Avenue and 98 Franklin Street and the designation of portions or all of the Hub Plan area as a housing sustainability district (HSD). This notice also identifies environmental issues anticipated to be analyzed in the EIR and provides the time, date, and location of a public scoping meeting (see p. 42 for information on the public scoping meeting). The comments received during the public scoping process will be considered during preparation of the EIR for this project.

www.sfplanning.org

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Revised 8/8/17

PROJECT SUMMARY

The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan for the easternmost portions of the Market and Octavia Area Plan. The overarching objectives of the Hub Plan are to encourage housing, including affordable housing; create safer and more walkable streets as well as welcoming and active public spaces; increase transportation options; and create a neighborhood with a range of uses and services to meet neighborhood needs. The Hub Plan would pursue this vision through changes to current zoning controls in the area to meet plan objectives. This would include changes to height and bulk districts for select parcels to allow more housing, including more affordable housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically, office, institutional, art, and public uses. The plan also calls for public-realm improvements to streets and alleys within and adjacent to the Hub Plan area. New requirements for micro retail¹ would encourage a mix of retail sizes and uses. The Hub Plan would lower off-street parking maximums to decrease off-street parking capacity within the Hub Plan area, a transit-rich location.

The EIR will study the Hub Plan at a programmatic level of review. A programmatic analysis is appropriate for a project that involves a series of actions that are (1) related geographically, (2) logical parts in a chain of contemplated actions, (3) connected as part of a continuing program, and (4) carried out under the same authorizing statute or regulatory authority, with similar environmental impacts that can be mitigated in similar ways (California Environmental Quality Act [CEQA] Guidelines section 15168). State CEQA Guidelines section 15168 notes that the use of a programmatic analysis “ensures consideration of cumulative impacts that might be slighted in a case-by-case analysis; avoids duplicative reconsideration of basic policy considerations; allows the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time, when the agency has greater flexibility to deal with basic problems or cumulative impacts; and allows for a reduction in paperwork.”

The EIR will evaluate two individual private development projects within the Hub Plan area (i.e., 30 Van Ness Avenue Project and 98 Franklin Street Project) in the EIR at a project-specific level. Likewise, the EIR will study the proposed street network improvements at the project level because of the sufficiency of detailed information available. The two individual development projects analyzed at the project level will be fully studied under CEQA to allow for entitlements following the certification of the EIR. Future projects that arise from the Hub Plan, on the other hand, may be required to undergo additional CEQA analysis to disclose impacts particular to a specific project or project site that are not currently known and, thus, not able to be evaluated at this time.

The proposed project at 30 Van Ness Avenue includes retention of portions of an existing 75-foot-tall, five-story building and construction of a 47-story building with ground-floor retail space, seven floors of office space, and 39 floors of residential space. The project sponsor for the 30 Van Ness Avenue Project is 30 Van Ness Development, LLC.

The proposed project at 98 Franklin Street includes demolition of an existing 100-space surface parking lot and construction of a 30-story residential tower above a five-story podium that would be occupied by new facilities for the International High School (Grades 9–12 of the French American International School

¹ A micro retail unit is defined as retail space with 1,000 square feet or less.

[FAIS]). In addition, the 98 Franklin Street Project proposes improvements to Lily Street between Gough and Franklin streets, including a midblock crossing on Lily Street between Franklin and Gough streets (to connect FAIS properties at 150 Oak Street, one block west of 98 Franklin Street) as well as improvements on the western portion of Oak Street between Van Ness Avenue and Franklin Street. The project sponsor for the 98 Franklin Street Project is a partnership between Related California and the FAIS.

In addition to programmatic review of the Hub Plan and project-specific review for the two individual projects, the EIR will evaluate the designation of portions or all of the Hub Plan area as a housing sustainability district (HSD), in accordance with Assembly Bill 73 (Government Code sections 66202 to 66210, and Public Resources Code sections 21155.10 and 2155.11). Designation of a HSD would allow the City and County of San Francisco (City) to authorize residential and mixed-use residential development within the Hub Plan area HSD through the ministerial issuance of a permit. Projects that qualify under the provisions of the HSD would require no additional environmental review.

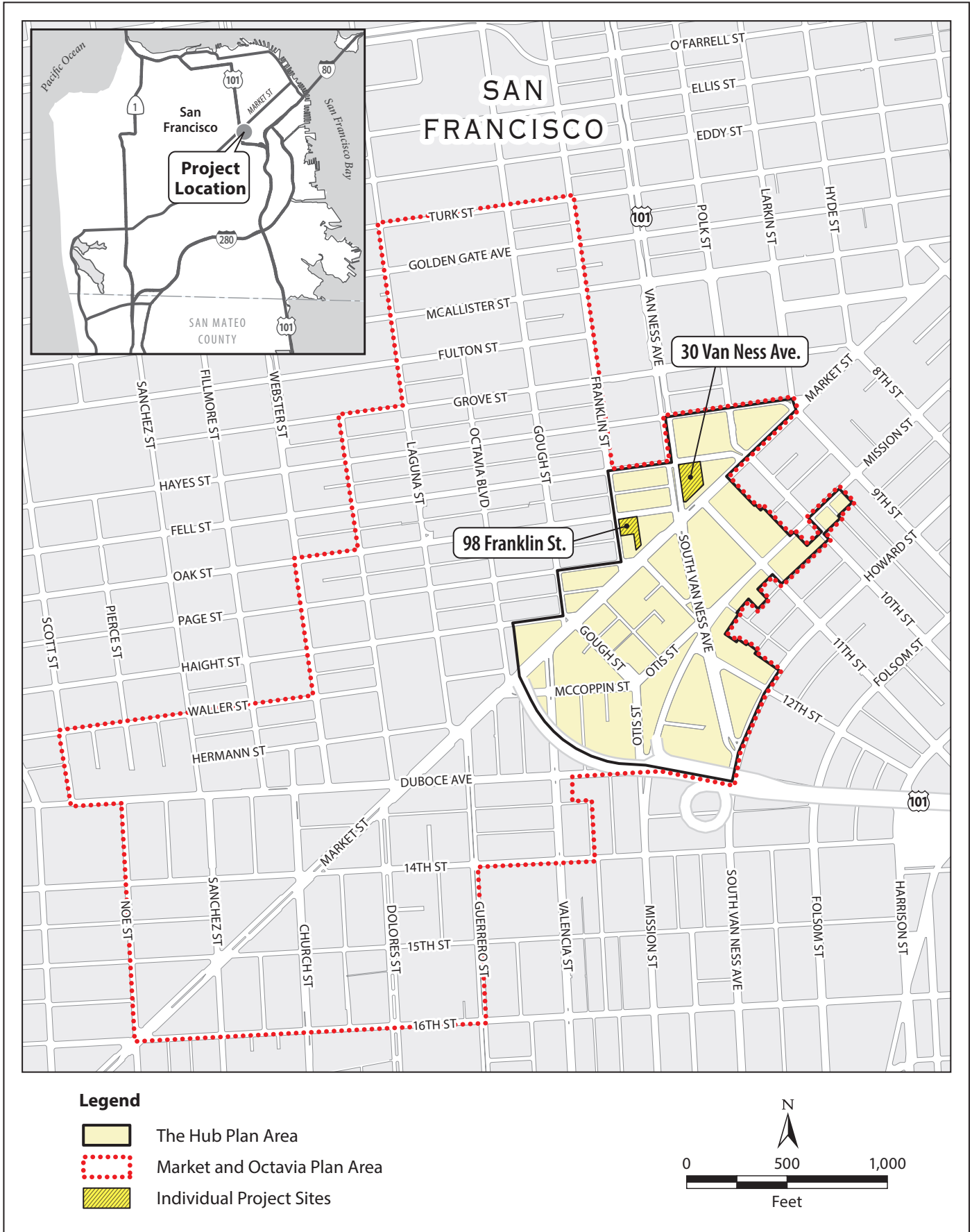
PROJECT LOCATION AND SITE CHARACTERISTICS

The Hub Plan

The Hub Plan area, which is irregular in shape, is bounded by Haight Street from Octavia Boulevard to Gough Street, Gough Street from Haight Street to Page Street, Franklin Street from Page Street to Fell Street, Fell Street from Franklin Street to Van Ness Avenue, Van Ness Avenue from Fell Street to Hayes Street, Hayes Street from Van Ness Avenue to Larkin Street, Market Street from Ninth Street to 10th Street, midblock from Ninth Street and 10th Street from Market Street to Mission Street, Mission Street from 10th Street to Washburn Street, midblock from Washburn Street to 10th Street, Minna Street from 10th Street to just past Lafayette Street, midblock between Lafayette Street and Howard Street, Howard Street between just north of 12th Street and 13th Street, and 13th Street to Octavia Boulevard and Haight Street (see **Figure 1**). Altogether, the Hub Plan area comprises approximately 84 acres, which are spread across various city neighborhoods, such as the Downtown/Civic Center, South of Market (SoMa), Western Addition, and Mission neighborhoods. The Hub Plan area is entirely within the boundaries of the Market and Octavia Area Plan area. In addition to the streets in the Hub Plan area, adjacent streets such as Lily Street between Gough Street and Franklin Street, Minna Street between 10th Street and Lafayette Street, and Duboce Avenue between Valencia Street and Mission Street are included in the project.

30 Van Ness Avenue Project

The 30 Van Ness Avenue project site encompasses an approximately 38,100-square-foot lot on Assessor's Block 0835/Lot 004. It is currently fully occupied by an approximately 75-foot-tall, five-story building with a variety of office and retail uses, including City government offices and Walgreens. There are currently approximately 164,480 square feet of general office space, 12,790 square feet of pharmacy/drugstore uses, 1,050 square feet of restaurant uses, and 15,850 square feet of parking uses. The project site is a trapezoidal parcel bounded by Fell Street to the north, 39 Fell Street and 1446 Market Street to the east (Assessor's Block 0835/Lot 003), Market Street to the south, and Van Ness Avenue to the west. The entire project site is covered with impermeable hardscape; the topography slopes down slightly from Van Ness Avenue and Fell Street toward Van Ness Avenue and Market Street.



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 1
Regional Location

98 Franklin Street Project

The 98 Franklin Street project site encompasses an approximately 23,750-square-foot lot on Assessor's Block 0836/Lots 008, 009, and 013. The project site at 98 Franklin Street is currently a surface parking lot with 100 off-street parking spaces. The project site is an L-shaped parcel at the corner of Franklin and Oak streets, and bounded by Oak Street to the north, 1546–1564 Market Street (Assessor's Block 0836/Lot 007) to the east, Market Street to the south, and Franklin Street to the west. The entire project site is paved; the topography of the site is relatively flat.

PROJECT DESCRIPTION

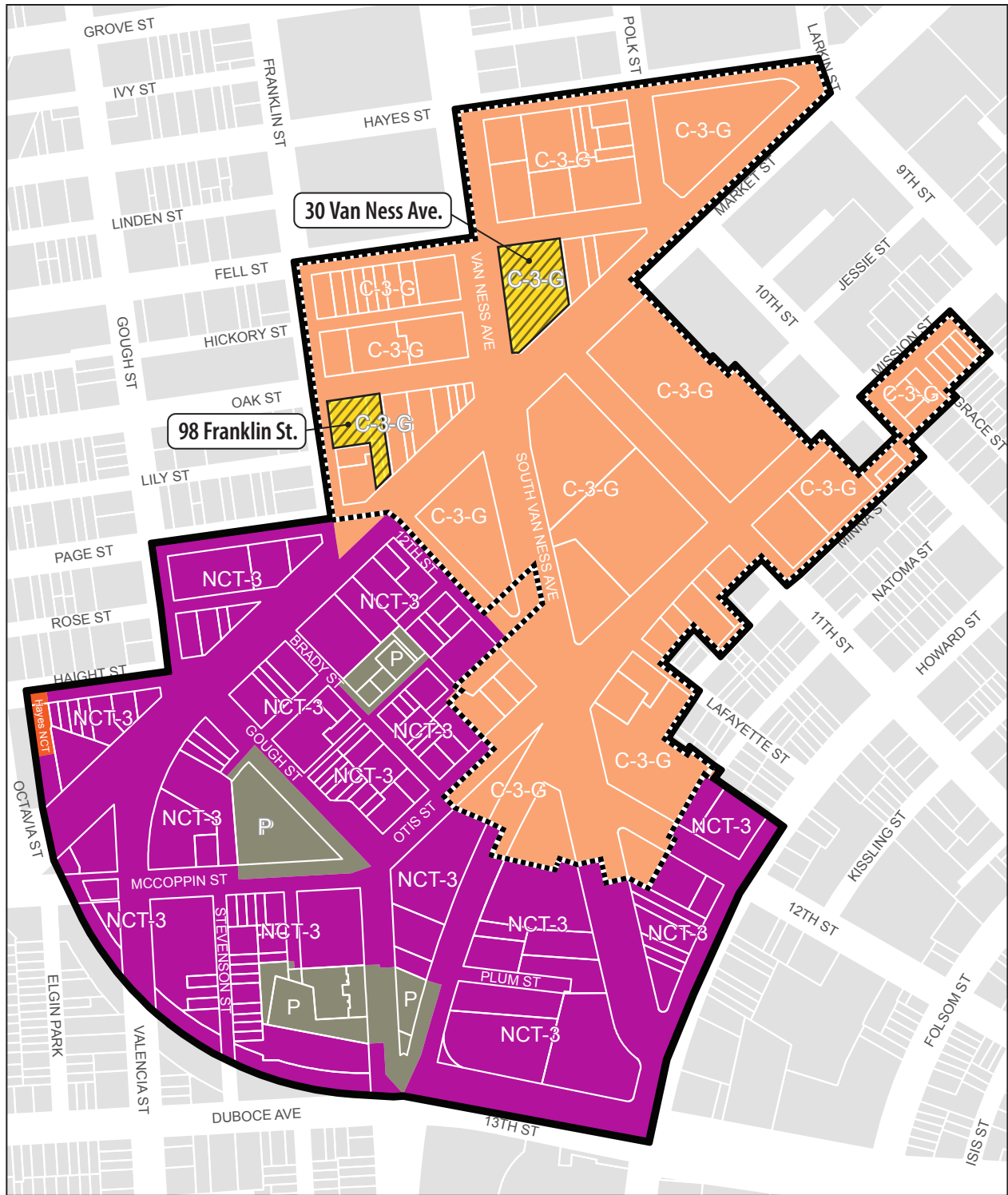
The Hub Plan

Land Use (Zoning) Changes. There are four existing zoning districts, which are also referred to as "use districts," in the Hub Plan area: Neighborhood Commercial (NCT-3), Downtown General Commercial (C-3-G), Hayes Neighborhood Commercial (Hayes NCT), and Public (P) (see **Figure 2**). All parcels that are zoned C-3-G are also within the Van Ness and Market Downtown Residential Special Use District (SUD). The Market and Octavia Area Plan created the SUD to emphasize residential uses as the primary land use. As such, nonresidential uses are currently not permitted above the fourth floor, and there must be 2 square feet of residential uses for every 1 square foot of nonresidential land use. The current zoning allows for a range of residential uses at varying scales of affordability as well as commercial uses on the ground floor.

Under the proposed project, there would be two zoning districts, Downtown General Commercial (C-3-G) and Public (P) (see **Figure 3**, p. 7). The Van Ness and Market Downtown Residential SUD would also be expanded to encompass the entire Hub Plan area.

All parcels in the Hub Plan area would continue to be zoned for residential and active commercial uses on the ground floor. In addition, there would be flexibility for nonresidential uses above the fourth floor, specifically, art, public, and institutional uses. At 30 Van Ness Avenue, retention and expansion of existing commercial uses, including office uses above the fourth floor, would be pursued. In December 2017, interim controls were put in place for 18 months that call for a maximum of 0.25 parking space per dwelling unit; however, projects with 25 percent on-site affordable housing may seek a conditional use authorization for up to 0.50 parking space per dwelling unit. Under the proposed Hub Plan, 0.25 parking space per dwelling unit would be the maximum allowed for residential uses; no conditional use authorization for additional parking would be permitted.

Changes to Height and Bulk Limits. Under the current zoning, much of the Hub Plan area is zoned for a height of 85 feet, with the exception of the two major intersections at Market Street and Van Ness Avenue and Mission Street and South Van Ness Avenue, which currently allow towers ranging from 250 to 400 feet. Buildings throughout the Hub Plan area generally range from two to six stories, with some notable exceptions at Market Street and Van Ness Avenue where some buildings are substantially taller, with the 100 Van Ness Avenue building at 29 stories (400 feet) and the 1455 Market Street building at 23 stories (315 feet).

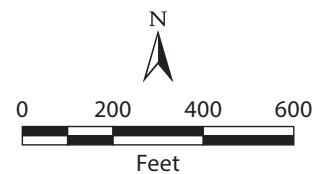


Zoning Codes

- C-3-G Downtown General Commercial
- NCT-3 Neighborhood Commercial
- P Public
- Hayes NCT Hayes Neighborhood Commercial

Legend

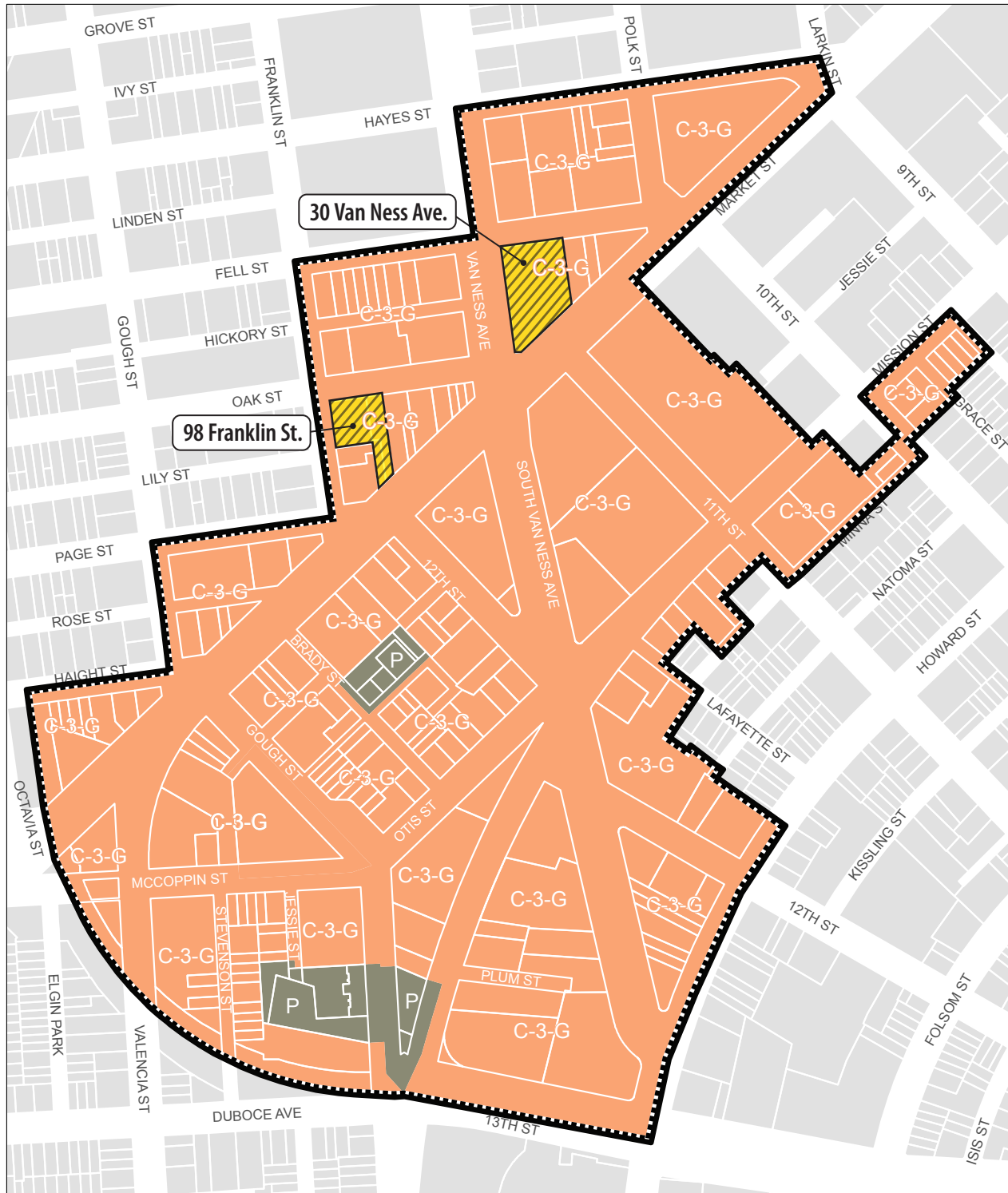
- The Hub Plan Area
- Individual Project Sites
- Van Ness & Market Downtown Residential Special Use District



Source: San Francisco Planning Department, 2017.

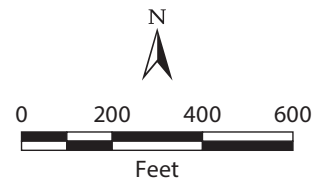
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 2
Existing Hub Plan Area Zoning Districts



Zoning Codes
 C-3-G Downtown General Commercial
 P Public

Legend
 The Hub Plan Area
 Individual Project Sites
 Van Ness & Market Downtown Residential Special Use District



Source: San Francisco Planning Department, 2017.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 3
Proposed Hub Plan Area Zoning Districts

The Hub Plan seeks to increase the space available for housing through changes to the planning code and zoning map so as to allow development of a taller, larger, and more diverse array of buildings and heights within the Hub Plan area. Existing height and bulk limits, which are contained in the planning code and zoning maps, are shown in **Figure 4**, and proposed height and bulk limits are shown in **Figure 5**, p. 10.

The proposed zoning under the Hub Plan would allow for additional height at the two major intersections noted above, with towers ranging from 250 to 650 feet. This proposed zoning would also allow increases in heights for select parcels. Specific changes to height limits under the Hub Plan are shown in **Table 1**. If all of these parcels were to be developed to the proposed maximum height limit, these changes would result in approximately 8,100 new residential units (approximately 15,700 new residents).

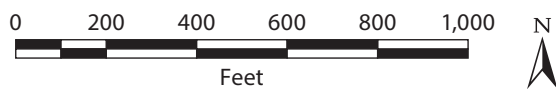
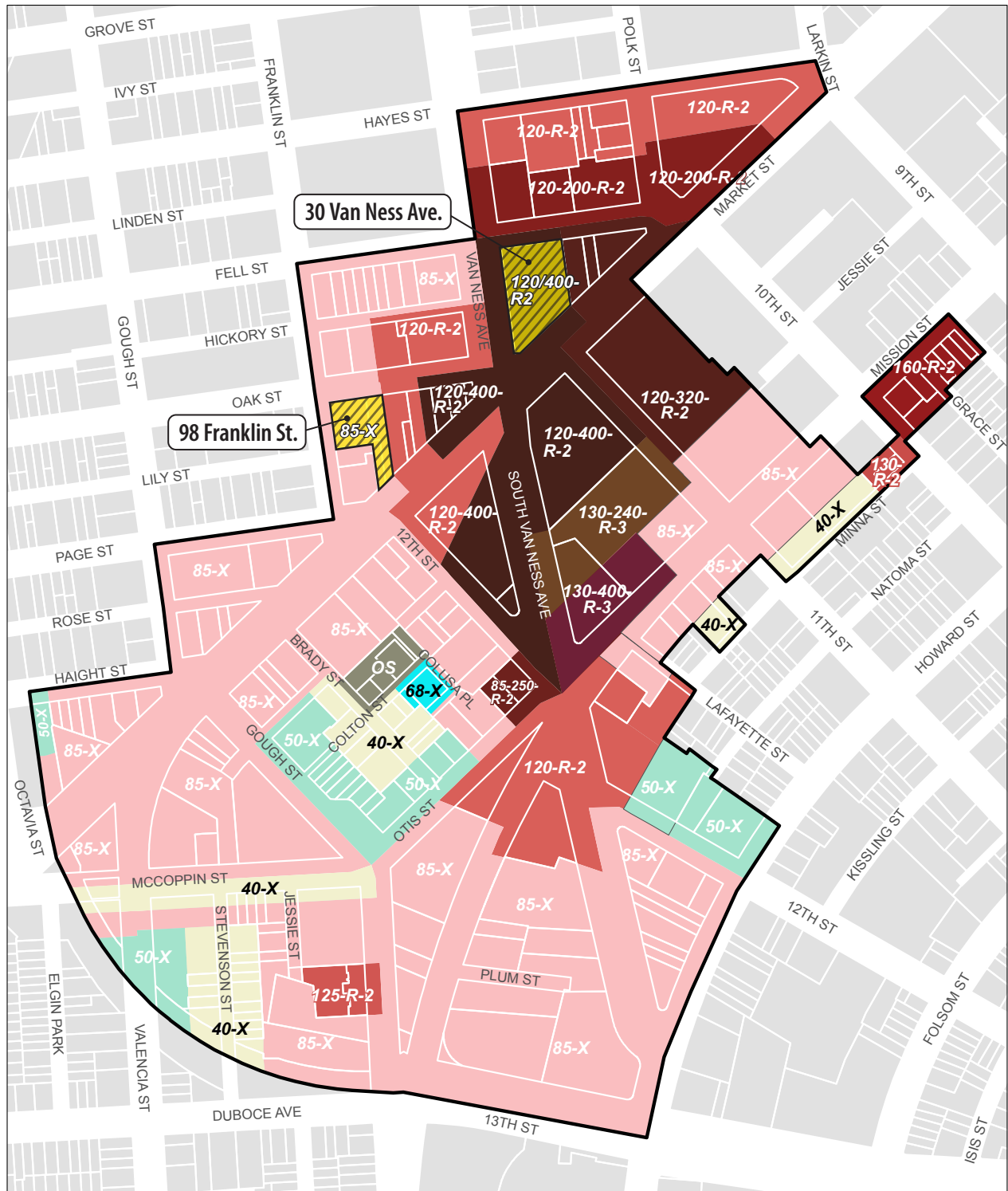
TABLE 1. PROPOSED CHANGES TO HEIGHT LIMITS

Address	Current Height Limit (feet)	Proposed Height Limit (feet)	Change in Height Limit (feet)
30 Van Ness Avenue	400	520	120
1500–1540 Market Street	400	450	50
98 Franklin Street	85	360*	275
1 South Van Ness Avenue	400	650	250
10 South Van Ness Avenue	400	590	190
30 Otis Street	250	320	70
42 Otis Street	50	65	15
50 Otis Street	50	65	15
99 South Van Ness Avenue	120	250	130
33 Gough Street	85	250	165
110 12 th Street	85	120	35
180 12 th Street	85	120	35
194 12 th Street	85	120	35
154 South Van Ness Avenue	85	120	35
160 South Van Ness Avenue	85	120	35
170 South Van Ness Avenue	85	120	35
1695 Mission Street	85	120	35



Source: San Francisco Planning Department 2018.

*The EIR will analyze a height limit of 360 feet for 98 Franklin Street, as proposed by the project sponsor, whereas the draft Hub Plan proposes a height limit of 320 feet at this location.

Circulation, Streetscape Improvements, and Street Network Changes. The Hub Plan area’s relatively high density is supportive of walking, although the area’s wide and predominantly one-way streets, long blocks, narrow sidewalks, and elevated freeway segments, with associated ramps, generally do not contribute to a positive walking or bicycling experience and present many physical challenges for people while walking and bicycling in the area. The Hub Plan proposes to make improvements to the major streets and alleys in the Hub Plan area, as shown in **Figure 6**, p. 11. The goal of these changes is to create a safer transportation



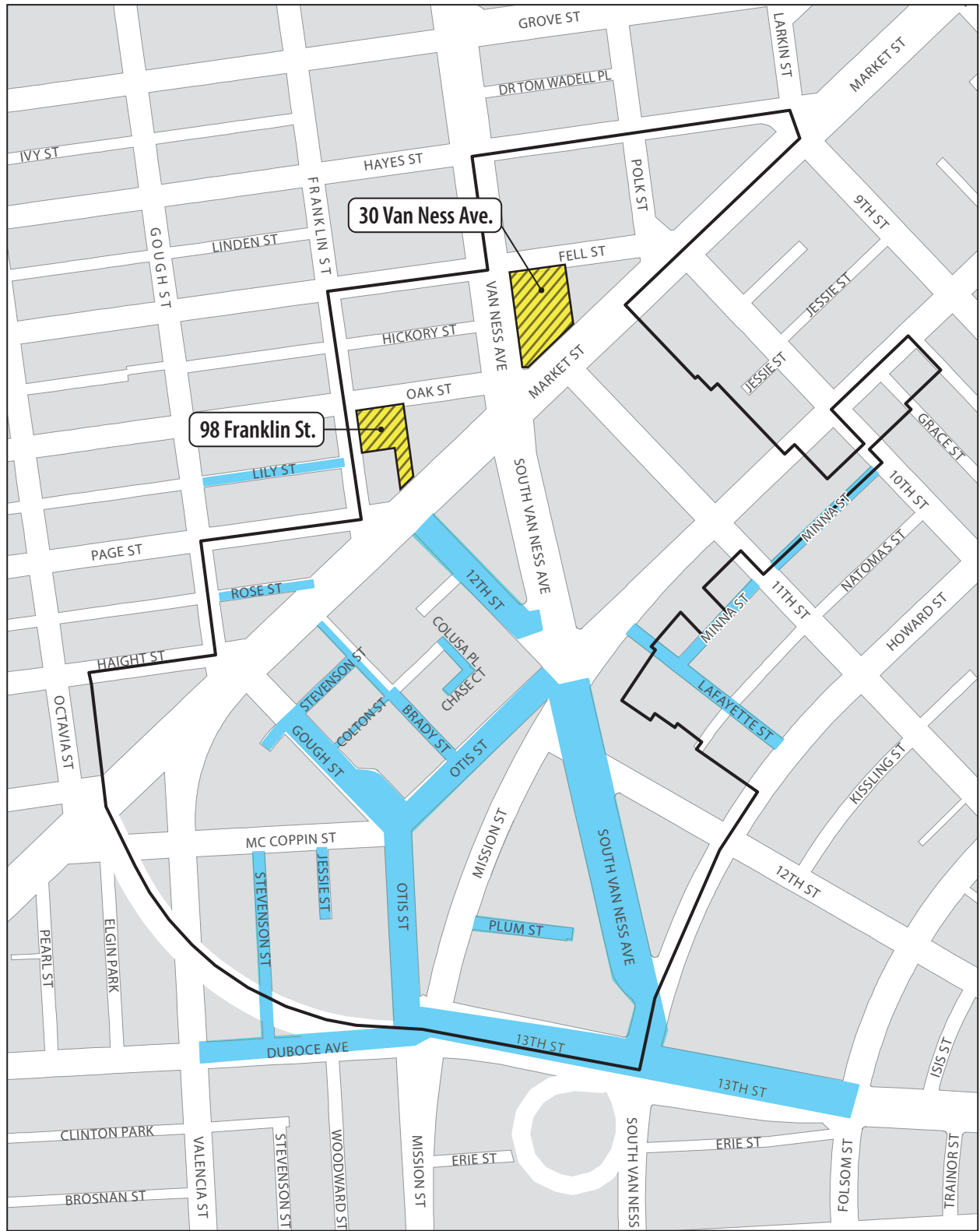
Legend

-  The Hub Plan Area
-  Individual Project Sites
- 50-X** Numbers Indicate Height in Feet
Letters Indicate Bulk District
- OS** Open Space District




Source: San Francisco Planning Department, 2018.

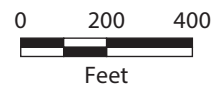
Figure 4
Existing Hub Plan Area Height and Bulk Districts

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV



Legend

-  The Hub Plan Area
-  Individual Project Sites
-  Proposed Street Network and Alley Improvements



Source: San Francisco Planning Department, 2018.

ICF Graphics: ... 0070017 (5-9-2018)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 6
The Hub Plan Area Boundaries, Individual Project Site Locations, and Proposed Street Network and Alley Improvements

experience for everyone; make transit, walking, bicycling, (shared) for-hire vehicle use, and car-sharing the preferred ways for people to travel; facilitate passenger loading and commercial deliveries; and enhance the public realm. Other projects in the city, such as the Van Ness Avenue Bus Rapid Transit Project and Better Market Street Project, and other private development projects, are evaluating and implementing other street network improvements in the vicinity of the Hub Plan area. These other improvements are independent of the Hub Plan.

The Hub Plan would establish a functional, attractive, and well-integrated system of public streets in the area to improve the public realm through the streetscape improvements described in the following sections. The Hub Plan proposes circulation changes to major intersections such as Market Street and Van Ness Avenue as well as Mission Street and South Van Ness Avenue to improve safety. Specific design recommendations for implementing the goals of the Hub Plan have been developed for the following streets (see **Figure 6**, p. 11):

- 12th Street: Market Street to Mission Street
- Gough Street: Stevenson Street to Otis Street
- Mission Street/South Van Ness Avenue intersection
- South Van Ness Avenue: Mission Street to 13th Street
- Otis Street: South Van Ness Avenue to Duboce Avenue
- 13th Street/Duboce Avenue: Folsom Street to Valencia Street

Alleys within the Hub Plan area are small-scale streets that typically carry relatively low numbers of vehicles. Drivers use primarily the alleys when accessing adjacent properties. The character of the alleys varies across the neighborhoods, from residential alleys to service alleys. In general, per the Better Streets Plan² and Living Alleys Toolkit,³ San Francisco alleys should be designed to reinforce the right-of-way as a pedestrian space; vehicle speeds should be kept low through traffic calming; materials should encourage visual interest through high-quality materials, finishes, and detailing; and alley amenities should include seating, landscaping, and pedestrian lighting to create usable public spaces that are unique and comfortable.

Alleys within the Hub Plan are intended to have a consistent palette of materials that is harmonious with the existing upgraded alleys within the Market and Octavia Area Plan, such as on Jessie and Stevenson streets between McCoppin Street and Duboce Avenue. These alleys typically have special paving in the roadway, raised crosswalks at intersections, and trees and landscaping wherever feasible. The development of specific design recommendations for all Hub Plan alleys has been based on these existing

² The Better Streets Plan, adopted December 2010, includes streetscape policies and guidelines to guide the design of new street improvement projects and streetscape requirements for new development. More information is available here: <http://www.sf-planning.org/ftp/BetterStreets/>.

³ The planning department worked with community members to design and implement a network of living alleys for the Market and Octavia Area Plan. The toolkit was created to give members of the community an understanding of the design elements and processes involved in creating living alleys. More information about the toolkit is available here: <http://sf-planning.org/living-alleys-toolkit>.

design precedents to improve conditions, particularly for people while walking and bicycling. Recommendations that implement the primary goals of the Hub Plan have been developed for the following alleys (see **Figure 6**, p. 11):

- Lily Street: Franklin Street to Gough Street (discussed as part of the 98 Franklin Street Project)
- Rose Street: Gough Street to Franklin Street
- Minna Street: 10th Street to Lafayette Street
- Lafayette Street: Mission Street to Howard Street
- Stevenson Street: Brady Street to Gough Street
- Stevenson Street: Gough Street to dead end at 1699 Market Street
- Colusa Place: Colton Street to Chase Court
- Chase Court: Colusa Place to dead end
- Colton Street: Brady Street to Gough Street
- Brady Street: Market Street to Colton Street (west side)
- Brady Street: Colton Street to Otis Street
- Plum Street: South Van Ness Avenue to Mission Street
- Jessie Street: South from McCoppin Street
- Stevenson Street: McCoppin Street to Duboce Avenue

Van Ness Avenue and Market Street are part of a major transit hub in the city. The Hub Plan proposes to improve access at the Van Ness Avenue San Francisco Municipal Railway (Muni) station. The station improvements at the Van Ness Avenue Muni station that will be studied in the EIR could generally include:

- Street-to-mezzanine circulation improvements, including elevators, stairs, escalators, and portal canopies
- Mezzanine-to-platform circulation improvements, including elevators, stairs, and escalators
- Wayfinding and other signs at street level and within the station
- Upgrades to booths for station agents and fare gates
- Platform improvements to support operations
- Platform improvements to improve comfort and security for passengers

30 Van Ness Avenue Project

The proposed project at 30 Van Ness Avenue includes partial retention of the existing office/retail building and construction of a 47-story building with ground-floor retail space, seven floors of office space, and 39 floors of residential space.

Proposed Project and Uses. The proposed development at 30 Van Ness Avenue would total approximately 791,000 square feet, including 21,000 square feet of retail, 250,000 square feet of general office, and 520,000 square feet of residential, as shown in **Table 2**. The proposed project at 30 Van Ness

TABLE 2. PROPOSED DEVELOPMENT AT 30 VAN NESS AVENUE

	Count	Gross Square Feet
Residential Units (total)	610 ⁴	520,000
<i>Studio</i>	229	—
<i>One-Bedroom Units</i>	229	—
<i>Two-Bedroom Units</i>	92	—
<i>Three-Bedroom Units</i>	60	—
Commercial	—	271,000
<i>Retail</i>	—	21,000
<i>Office</i>	—	250,000
Open Space	—	30,580
<i>Privately Owned Public Open Space</i>		1,300
<i>Commonly Accessible Open Space (Residential)</i>		29,280

Sources: Hassell, 2017 and 30 Van Ness Development, LLC, 2018.

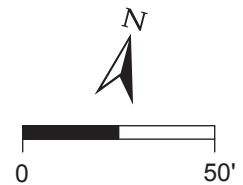
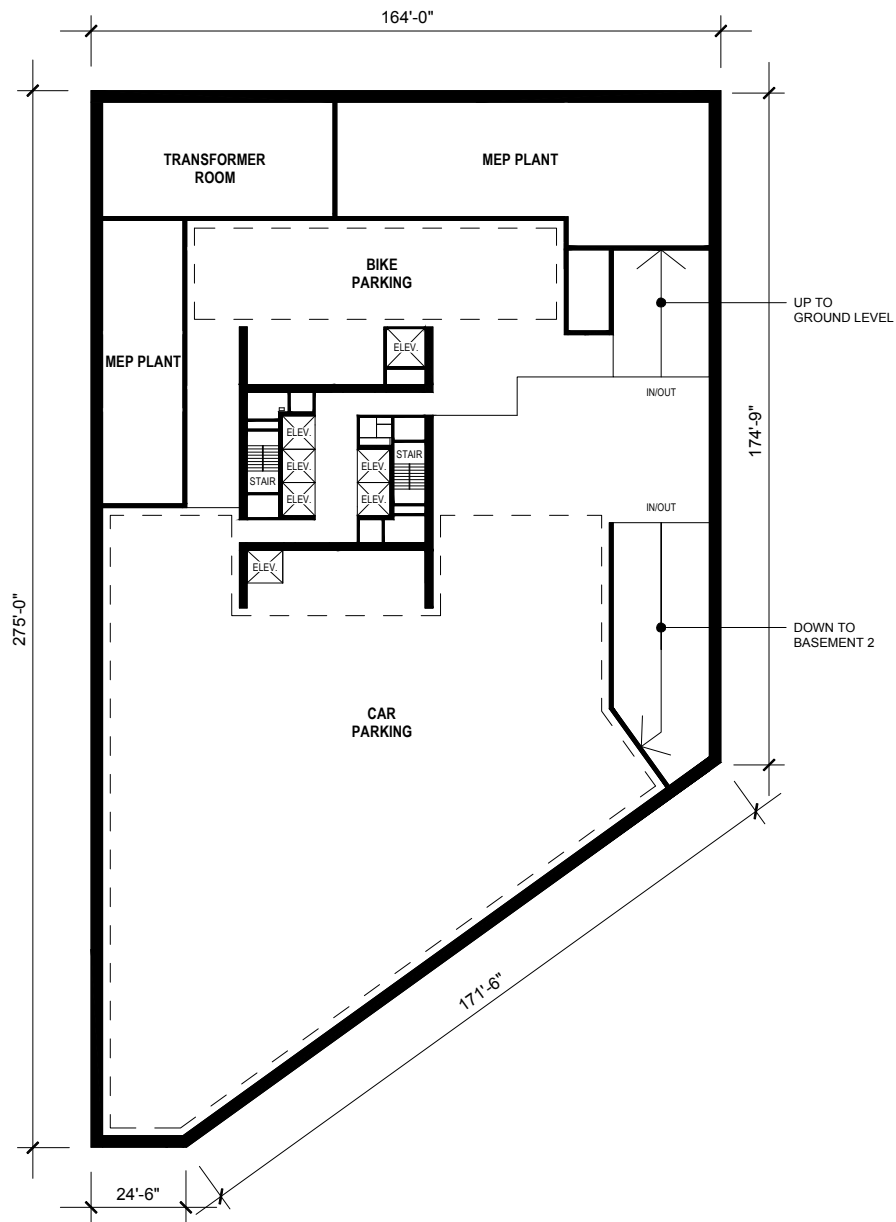
Avenue would include an eight-story podium, consisting of ground-floor retail and seven floors of office space (levels 2 to 8). It would also include a residential tower with at least 400 residential units but possibly up to 610 residential units on 39 floors (levels 9 to 47), reaching a height of approximately 520 feet, with an additional 21 feet to the top of the rooftop mechanical features, as permitted by the planning code. Approximately 25 percent of all residential units would be affordable to a mix of low to moderate income households. **Figures 7 to 12**, pp. 15 to 20, show the proposed development on the basement level, level 1, levels 2 through 8, level 9, a typical residential plan, and roof plan. **Figures 13 and 14**, pp. 21 to 22, show the proposed building elevations from the north and west.

Open Space. The proposed project at 30 Van Ness Avenue would provide approximately 1,300 square feet of privately owned public open space on the ground floor. The proposed project would also provide approximately 29,280 square feet of commonly accessible open space for residents.⁵

Parking, Bicycle, and Loading Facilities. The 30 Van Ness Avenue project site would be accessible from Market Street, Van Ness Avenue, and Fell Street. Vehicular access to the parking garage would be via a driveway on Fell Street. People bicycling would be able to access the parking garage through the same driveway that vehicles use on Fell Street or a ground-floor entry on Van Ness Avenue or Market Street.

⁴ Depending on unit size and layout, the project would have at least 400 residential units but could have up to 610 residential units.

⁵ Based on a project with 610 residential units.

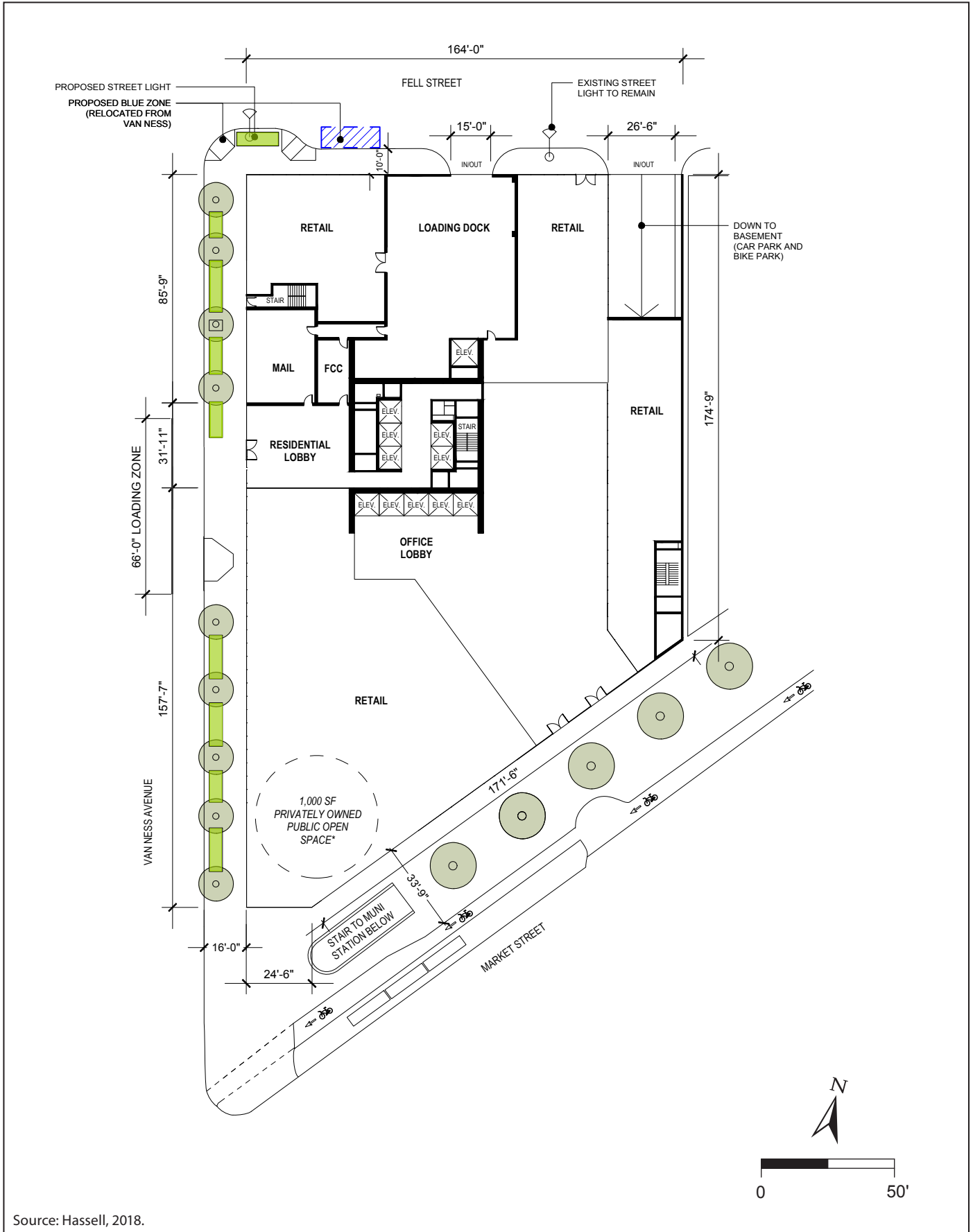


ICF Graphics...0070017 (5-9-2018)

Source: Hassell, 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
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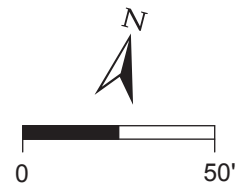
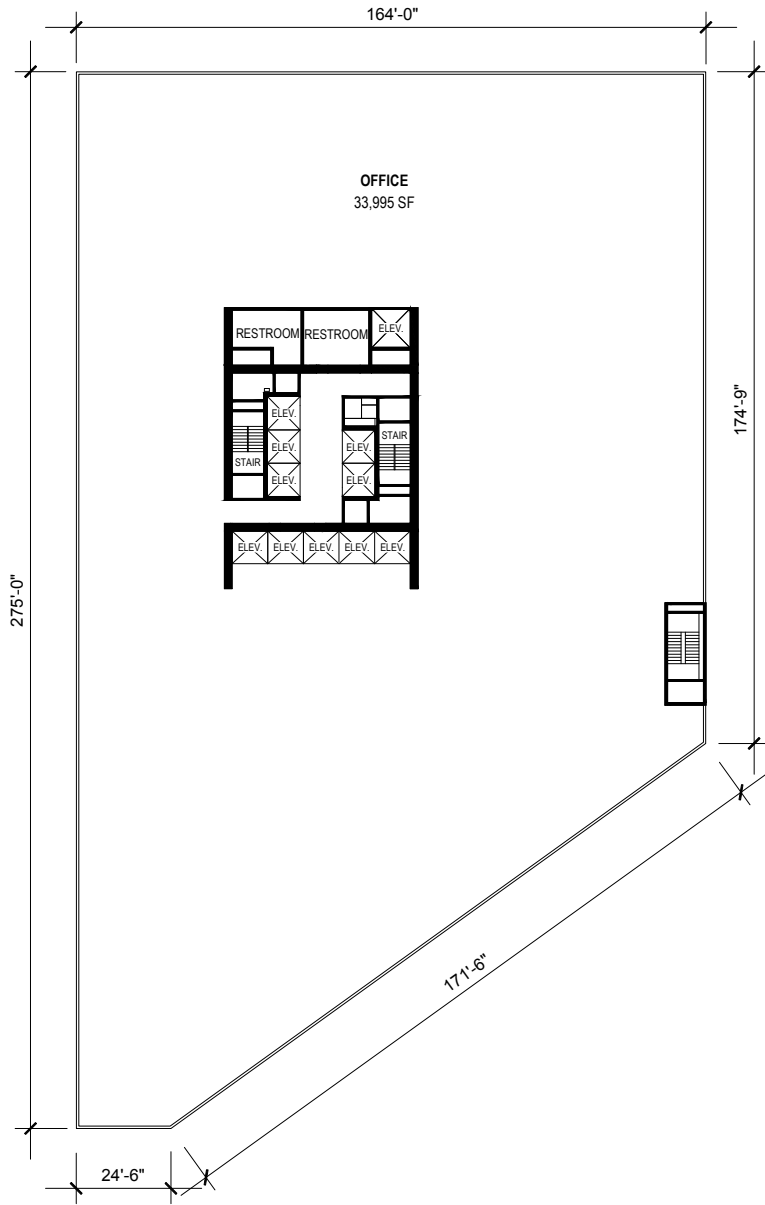
Figure 7
30 Van Ness Avenue Project –
Proposed Basement Level 1 Plan



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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

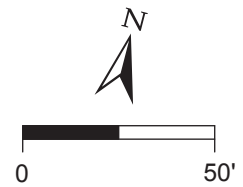
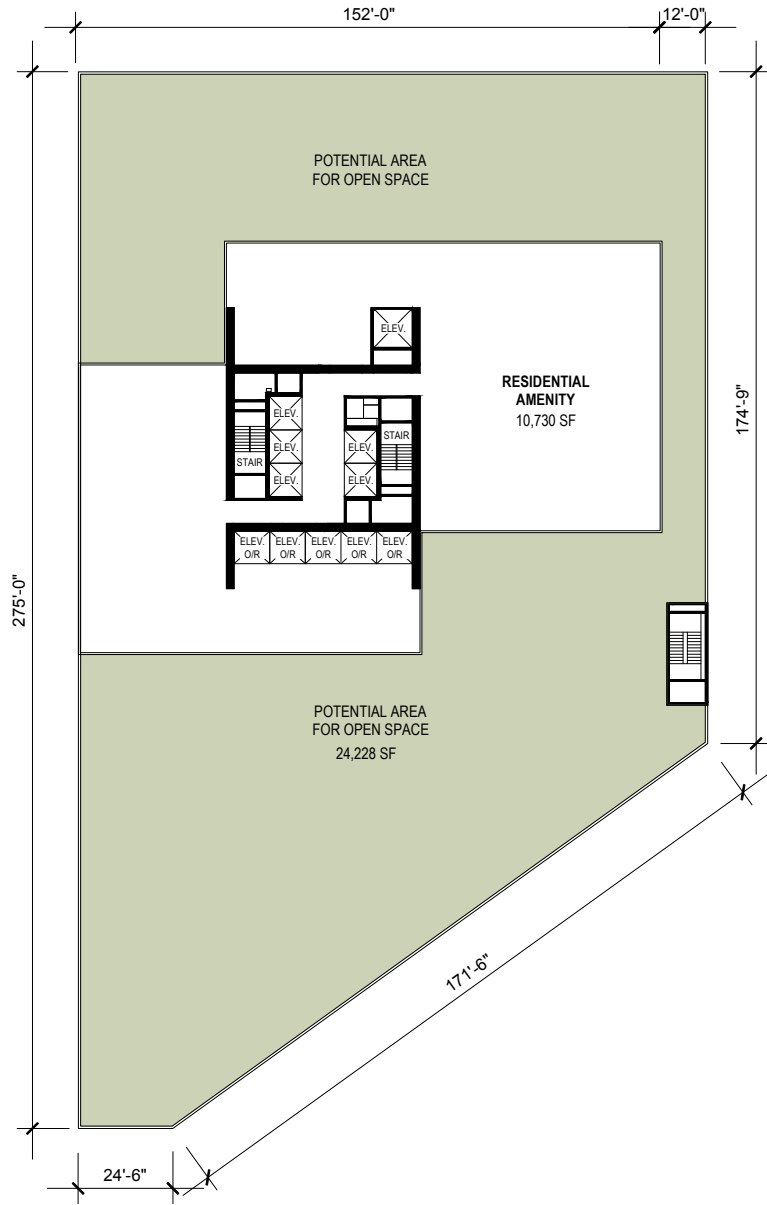
Figure 8
30 Van Ness Avenue Project – Proposed Level 1 Plan



Source: Hassell, 2018.

Figure 9
30 Van Ness Avenue Project –
Proposed Levels 2-8 Plan

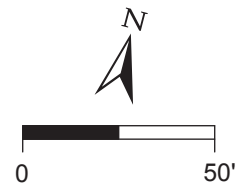
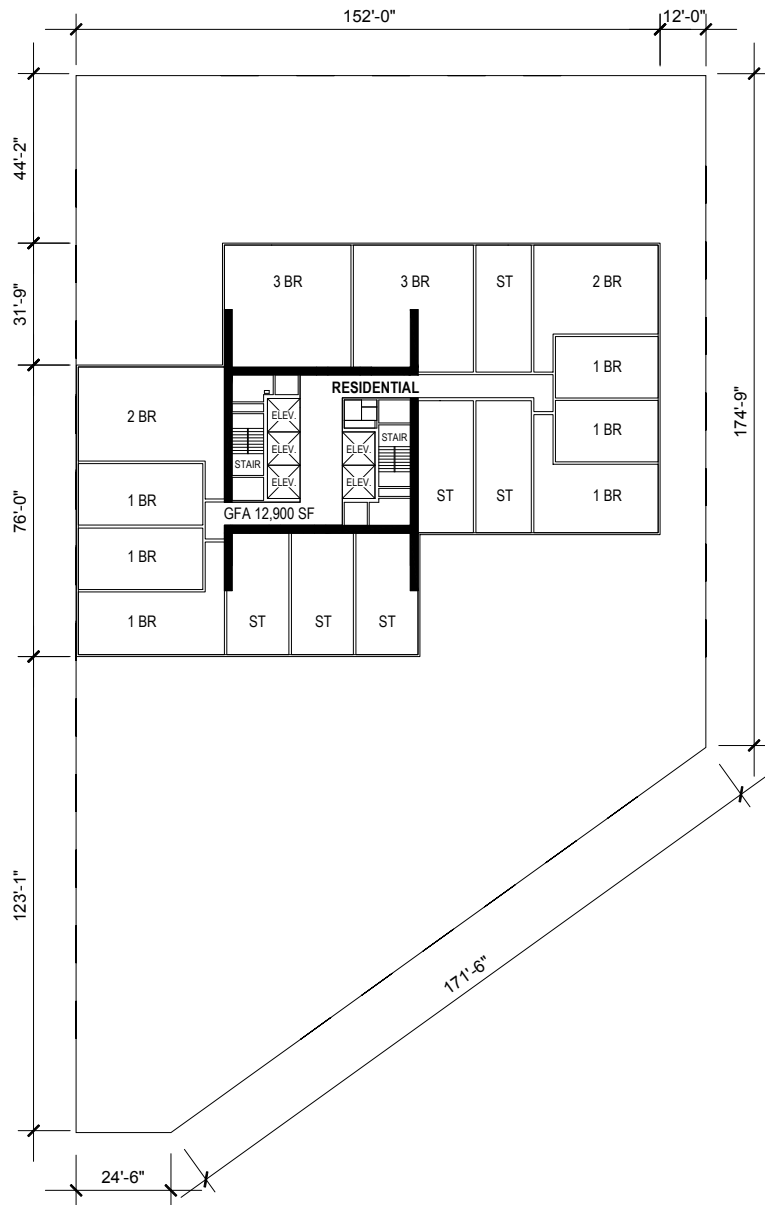
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 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV



Source: Hassell, 2018.

Figure 10
30 Van Ness Avenue Project –
Proposed Level 9 Plan

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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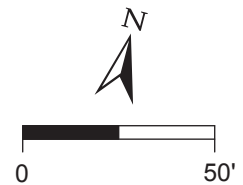
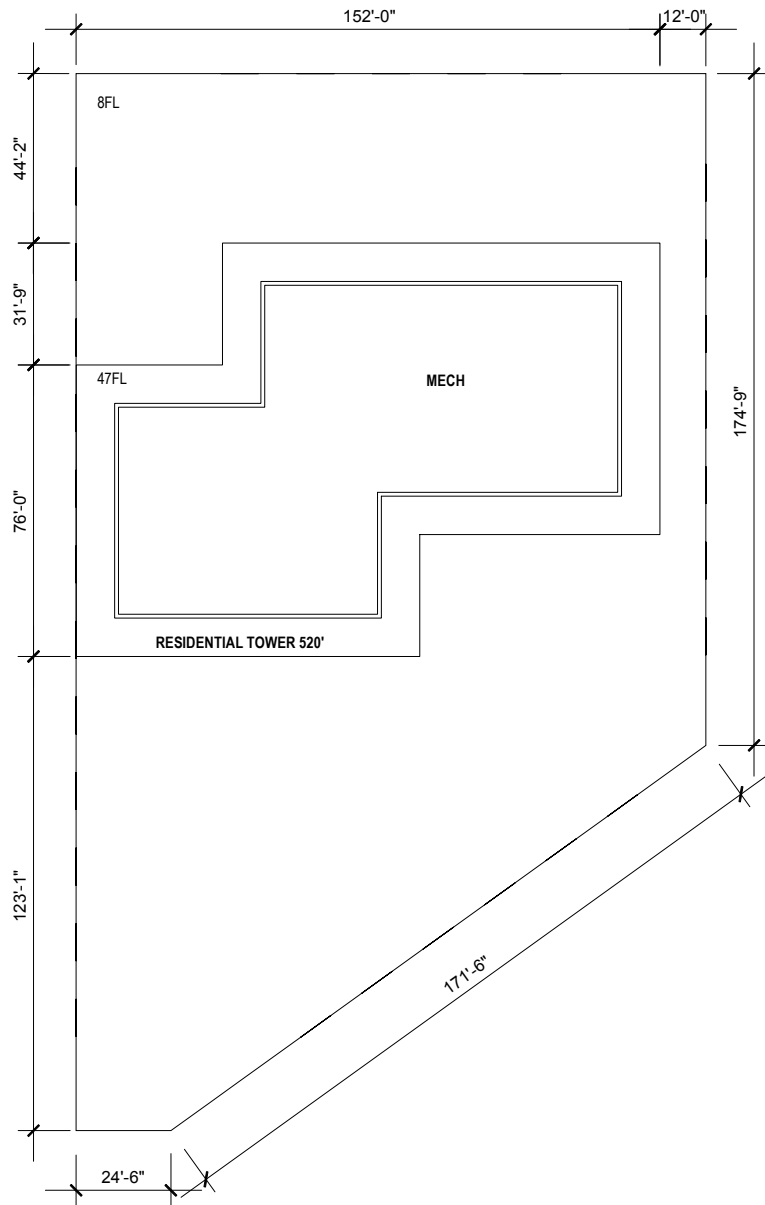


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Source: Hassell, 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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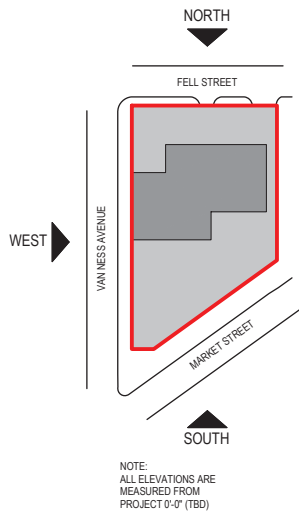
Figure 11
30 Van Ness Avenue Project –
Proposed Typical Residential Plan



Source: Hassell, 2018.

Figure 12
30 Van Ness Avenue Project –
Proposed Roof Plan

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
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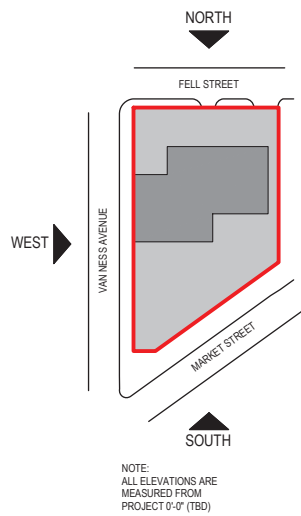
- RESIDENTIAL
- OFFICE
- RETAIL



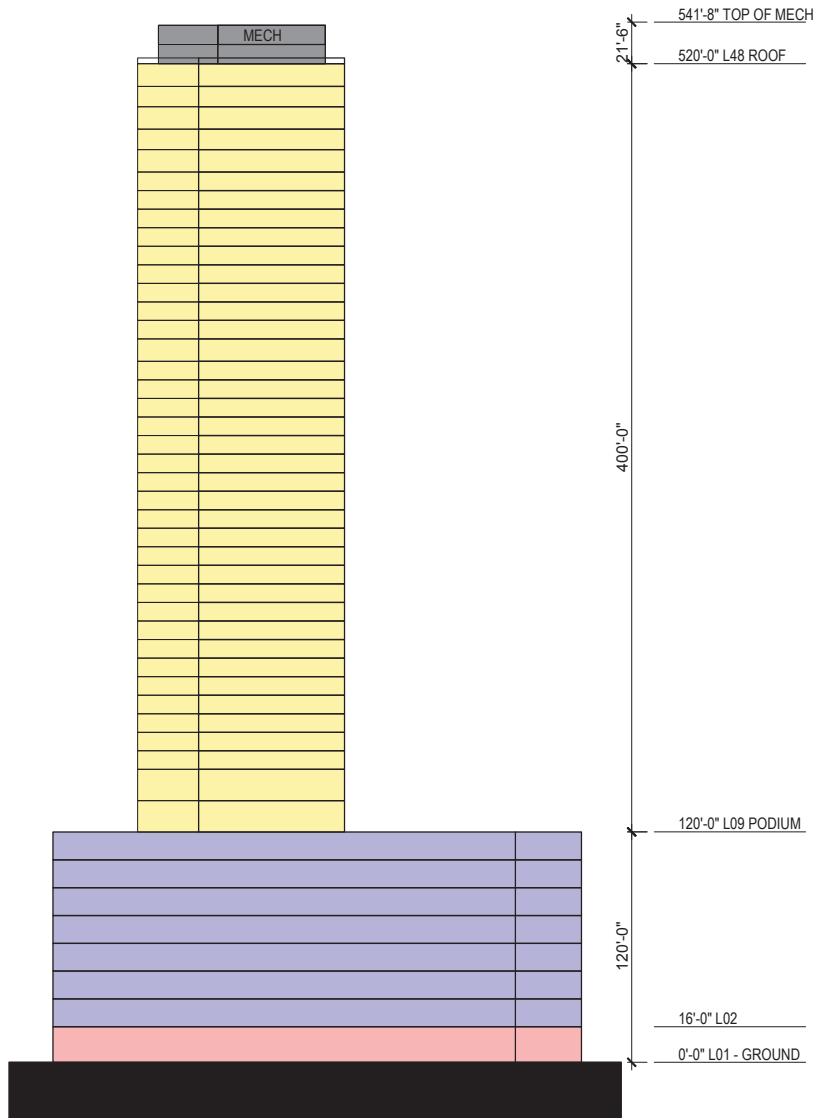
Source: Hassell, 2018.

Figure 13
30 Van Ness Avenue Project –
Proposed North Elevation

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
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- RESIDENTIAL
- OFFICE
- RETAIL



Source: Hassell, 2018.

Figure 14
30 Van Ness Avenue Project –
Proposed West Elevation

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
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On-street parking and loading spaces currently exist at the project site on Van Ness Avenue and Fell Street. An existing blue-colored parking space would be relocated from Van Ness Avenue to Fell Street for people with disabilities. Within the two basement levels, 30 Van Ness Development, LLC, proposes a total of 219 parking spaces,⁶ including seven Americans with Disabilities Act-compliant spaces. In addition, the project would include approximately five car-share spaces. It is anticipated that vehicular parking would be provided by car stackers.

The project would also include 281 *class 1* bicycle parking spaces and 46 *class 2* bicycle parking spaces.⁷ Of the 281 class 1 bicycle parking spaces, 228 spaces would be associated with the residential units,⁸ 50 spaces would be associated with the office uses, and three spaces would be associated with the retail uses. Of the 46 class 2 bicycle parking spaces, 31 spaces would be associated with the residential units, seven spaces would be associated with the office uses, and eight spaces would be associated with the retail uses. The class 1 bicycle parking spaces would be located in the basement levels or on the ground floor and would meet planning code requirements for specific locations and routes of travel.

Commercial (freight and delivery service) loading demand for the building would include residential move-in/move-out vehicles; office vehicles; garbage, compost, and recycling pickup vehicles; and delivery vehicles for residents, offices, and the required active retail space on the ground floor. Commercial and passenger loading would occur within the proposed on-street loading zone along the project frontage on Van Ness Avenue, in front of the residential lobby entrance. There would also be a loading dock that would be accessed from Fell Street with three off-street loading spaces and a 15-foot curb cut for larger deliveries, moving trucks, and garbage, compost, and recycling pickup vehicles.

Landscaping and Streetscape Improvements. Construction may result in removal and replacement of up to nine existing trees along Van Ness Avenue and Market Street. A total of up to 17 new street trees could be planted along Van Ness Avenue and Market Street. Additionally, sidewalk widening would occur along the project's frontage on Market Street and a bulb-out constructed at the northeast corner of Market Street and Van Ness Avenue.

Foundation and Excavation. The proposed project would construct a type 1 structure.⁹ Steel soldier piles would be driven over approximately two to three months to the perimeter of the 30 Van Ness Avenue project site as part of the temporary shoring system. If required, deep augercast piles would be installed in the Bay Area Rapid Transit (BART) zone of influence over four to six months, supporting a concrete mat foundation. The estimated amount of excavation at the project site is 51,000 cubic yards for the foundations

⁶ Based on a project with 610 residential units.

⁷ Section 155.1(a) of the planning code defines class 1 bicycle spaces as "spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees" and class 2 bicycle spaces as "spaces located in a publicly accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use."

⁸ Based on a 610 residential unit program.

⁹ Type 1 structures are constructed of concrete and protected steel (steel coated with a fire-resistant material, most often a concrete mixture) and designed to hold fire for an extended amount of time to prevent it from spreading.

and basement levels, which require excavation up to a depth of 48 feet, all of which would be exported from the site.

Construction. Construction of the proposed project at 30 Van Ness Avenue would be completed in a single phase, commencing in 2020 and lasting approximately 44 months. Construction would occur in several overlapping stages: (1) demolition of portions of the building, (2) excavation and shoring, (3) foundation and below-grade construction, (4) base construction, (5) exterior and interior finishing, and (6) sidewalk construction and landscaping. Construction shifts would typically occur from 7 a.m. to 7 p.m. Monday through Saturday. In accordance with the City noise ordinance, project construction would not occur between the hours of 8 p.m. and 7 a.m. Activities that would result in no detectable noise at adjacent land uses, such as interior painting, would not be limited to these hours. There may be some situations where construction would need to extend beyond normal hours, such as the concrete foundation pour. However, any such exceptional condition would be subject to normal review, permitting, and approval through the San Francisco Department of Building Inspection (for private property) or the San Francisco Department of Public Health (for public rights-of-way).

98 Franklin Street Project

The proposed project at 98 Franklin Street includes demolition of the existing surface parking lot and construction of a 30-story residential tower above a five-story podium that would provide new facilities for the International High School (Grades 9–12 of the FAIS).

Proposed Project and Uses. Development at 98 Franklin Street would total approximately 469,100 gross square feet, including a mix of approximately 349,200 gross square feet of market-rate and affordable residential uses, approximately 3,100 square feet of retail uses, and approximately 75,000 square feet of school uses, as shown in **Table 3**. In addition, the 98 Franklin Street project site would include approximately 41,800 square feet for 111 parking spaces within three below-grade garage levels. **Figures 15 to 21**, pp. 26 to 32, show the proposed development on the basement levels, ground-floor level, level 2, level 3, the lower tower, and the upper tower. **Figure 22**, p. 33, shows the proposed west/north elevations.

Residential: The 98 Franklin Street Project would include 345 apartment units, 18 percent of which would be affordable units. The residential tower, with a proposed height of 360 feet, would be constructed above the school podium.

Retail: The 98 Franklin Street Project would include retail space for a restaurant (e.g., café) on the ground floor (level 1).

TABLE 3. PROPOSED DEVELOPMENT AT 98 FRANKLIN STREET

	Count	Gross Square Feet
Residential Units (total)	345	349,200
<i>Studio</i>	172	—
<i>One-Bedroom Units</i>	86	—
<i>Two-Bedroom Units</i>	54	—
<i>Three-Bedroom Units</i>	33	—
Residential Common		22,410
Retail	—	3,100
School	36 classrooms	75,000
Garage	111 spaces	41,800
Private Open Space	—	11,530

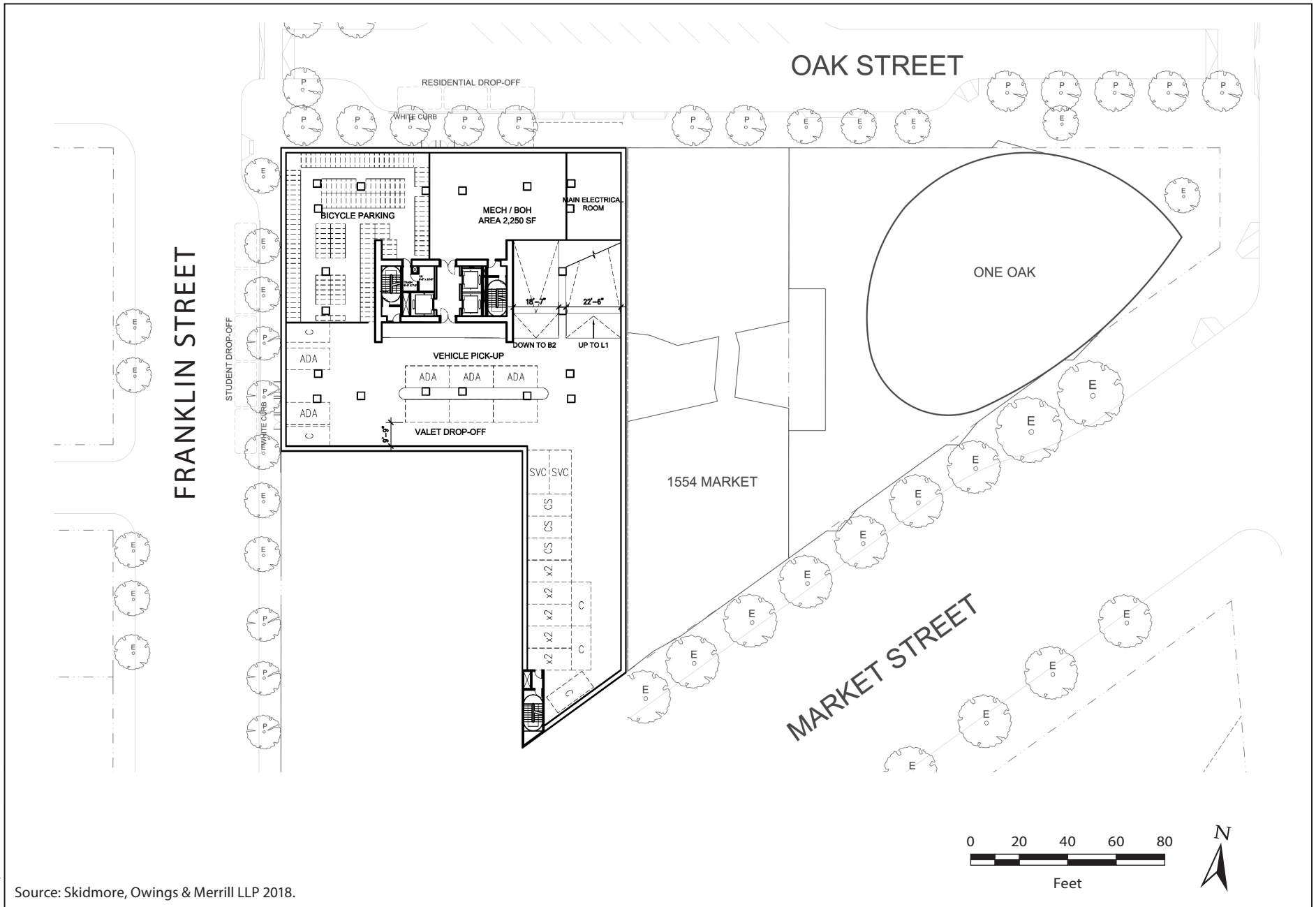
Source: Skidmore, Owings & Merrill 2018.

School: The development at 98 Franklin Street would accommodate the 380 existing students who would be relocated from the FAIS’s 150 Oak Street site; when completed, the development would accommodate up to 440 students at the 98 Franklin Street project site. The approximately 75,000 square feet of school space would be located within the podium and occupied by new facilities for the International High School (Grades 9–12 of the FAIS). The 98 Franklin Street Project would also result in the addition of up to five staff members, for a total of 65 staff members at the high school.

Open Space. The proposed project at 98 Franklin Street would include approximately 11,530 square feet of open space for the school, including a roof deck and other open spaces (5,000 square feet), and a total of 11,530 square feet of private open space for residents, including a roof deck and amenity-level open space (6,530 square feet).

Parking, Bicycle, and Loading Facilities. The project site would be accessible from Franklin, Oak, and Market streets. Vehicular access to the parking garage would be from a driveway on Oak Street. Residential valet pickup and drop-off would be inside the parking garage on basement level 1. People bicycling could access the parking garage from the same driveway that vehicles use on Oak Street or use the other entrances on Franklin or Oak streets.

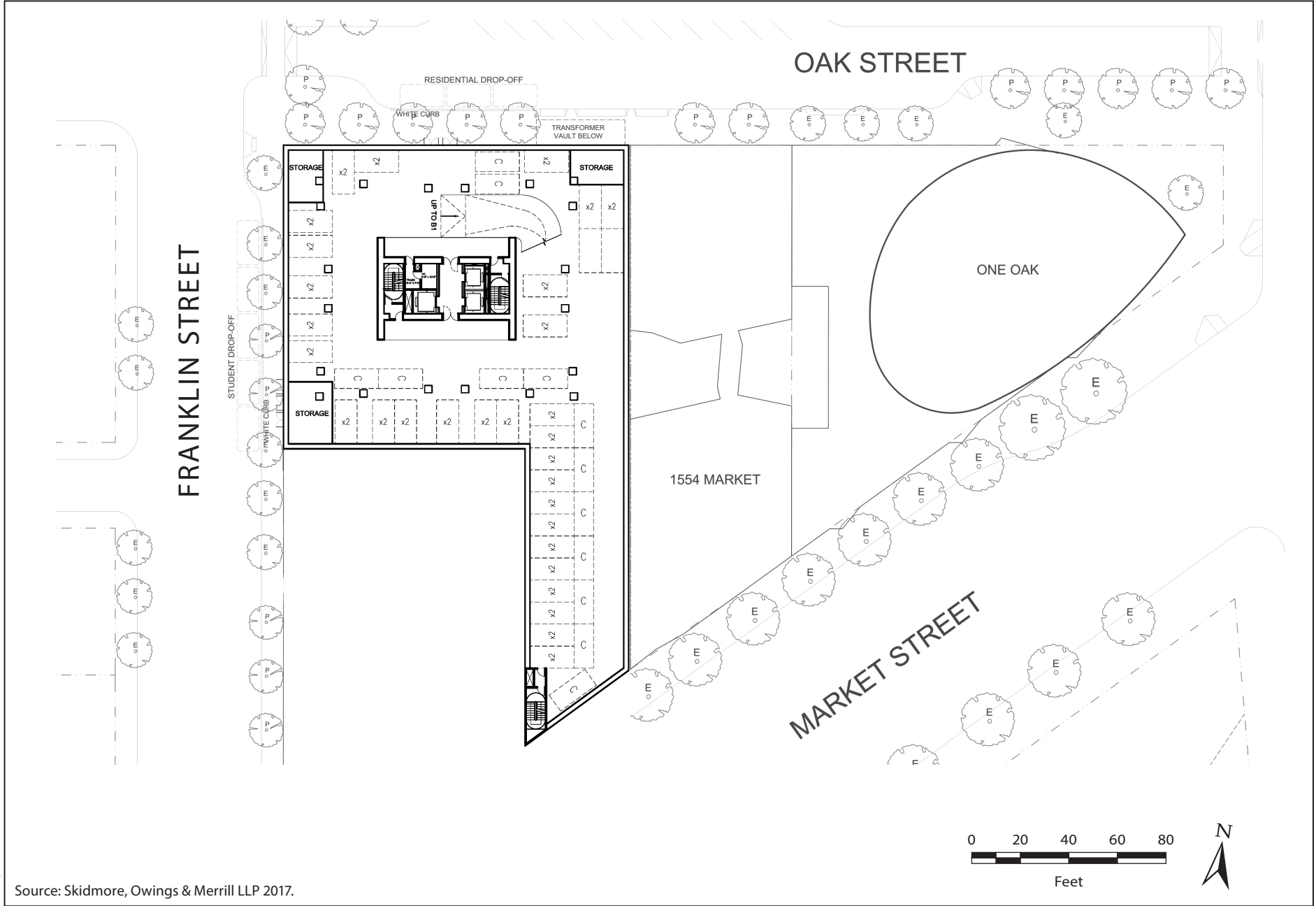
No on-street parking would be provided as part of the proposed project at 98 Franklin Street. Within the basement level of 98 Franklin Street, a total of 111 parking spaces would be provided, 82 spaces for residential uses and 29 spaces for school uses. The project would also provide three car-share spaces and five Americans with Disabilities Act–compliant spaces.



Source: Skidmore, Owings & Merrill LLP 2018.

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 2016-014802ENV

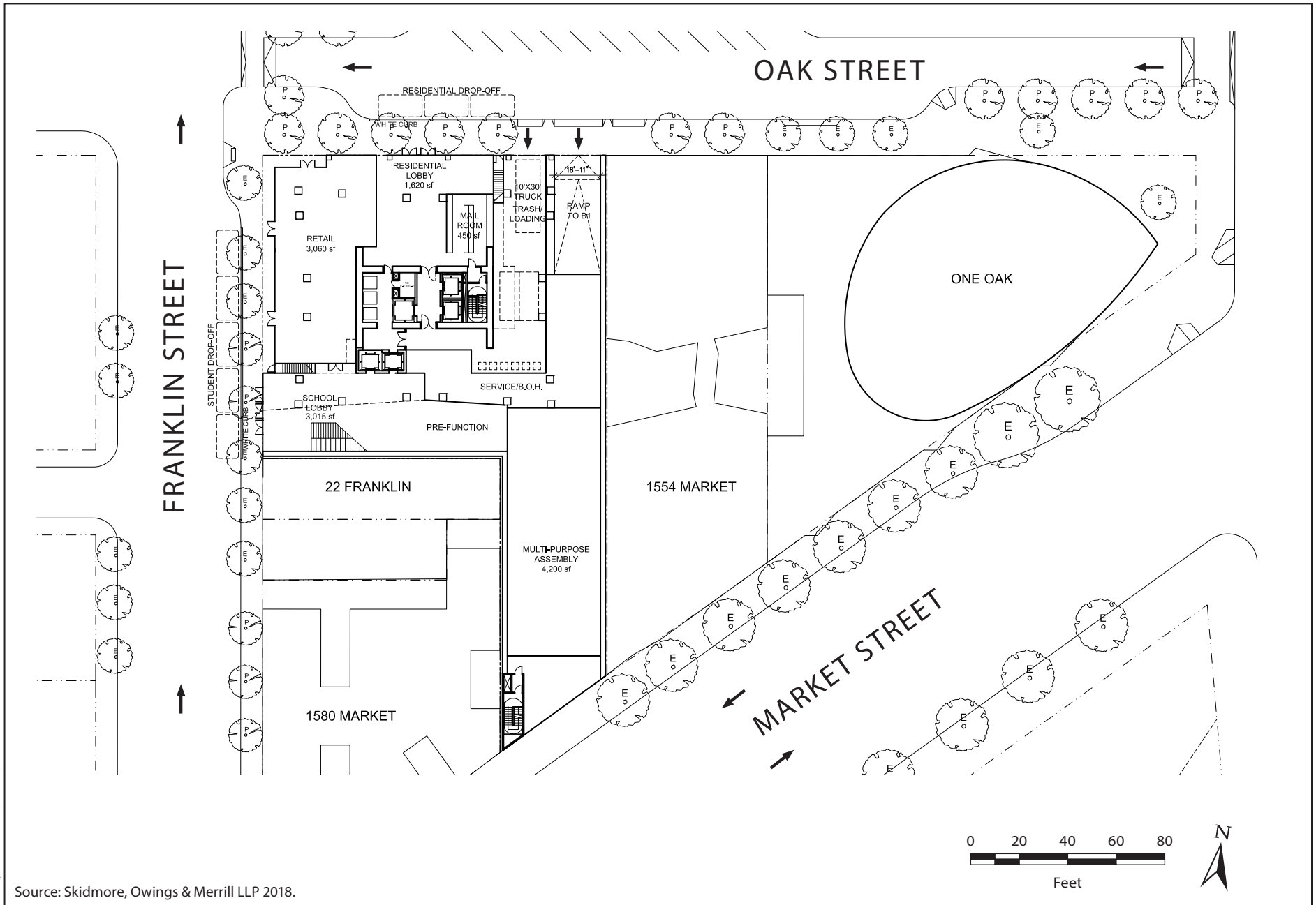
Figure 15
98 Franklin Street Project –
Proposed Basement Level 1 Plan



Source: Skidmore, Owings & Merrill LLP 2017.

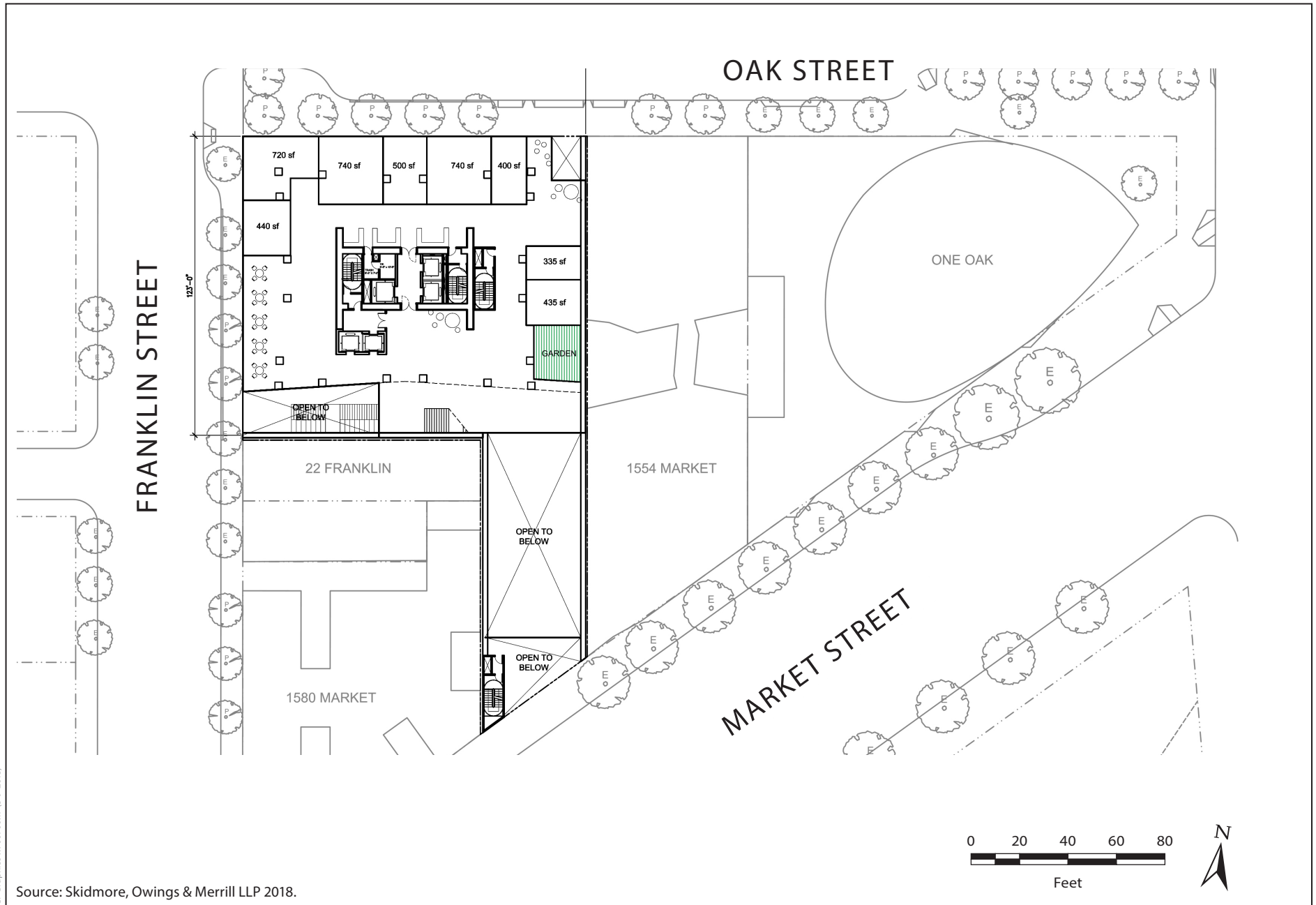
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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Figure 16
98 Franklin Street Project –
Proposed Basement Level 2 Plan



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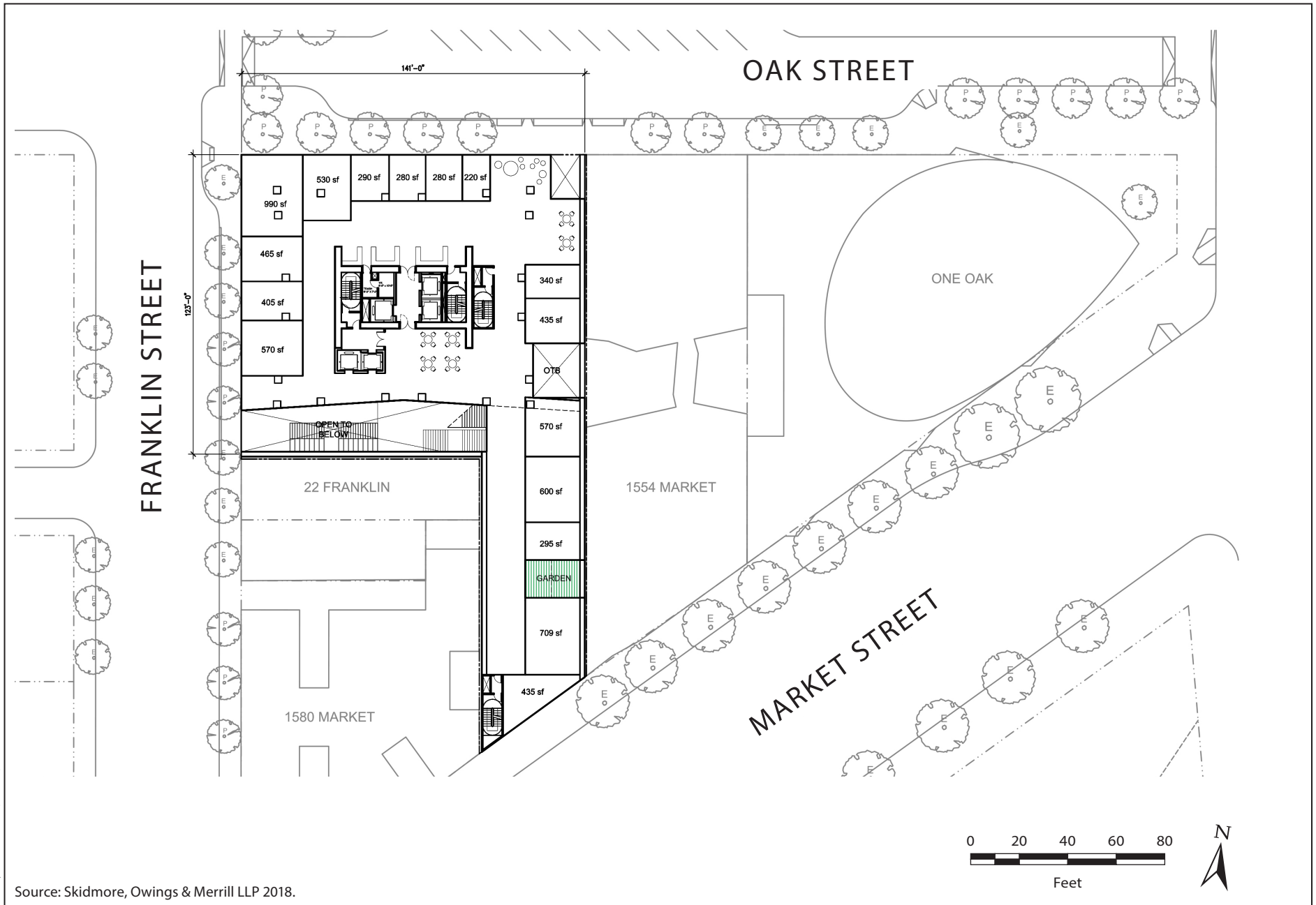
Figure 17
98 Franklin Street Project –
Proposed Ground Floor Plan



Source: Skidmore, Owings & Merrill LLP 2018.

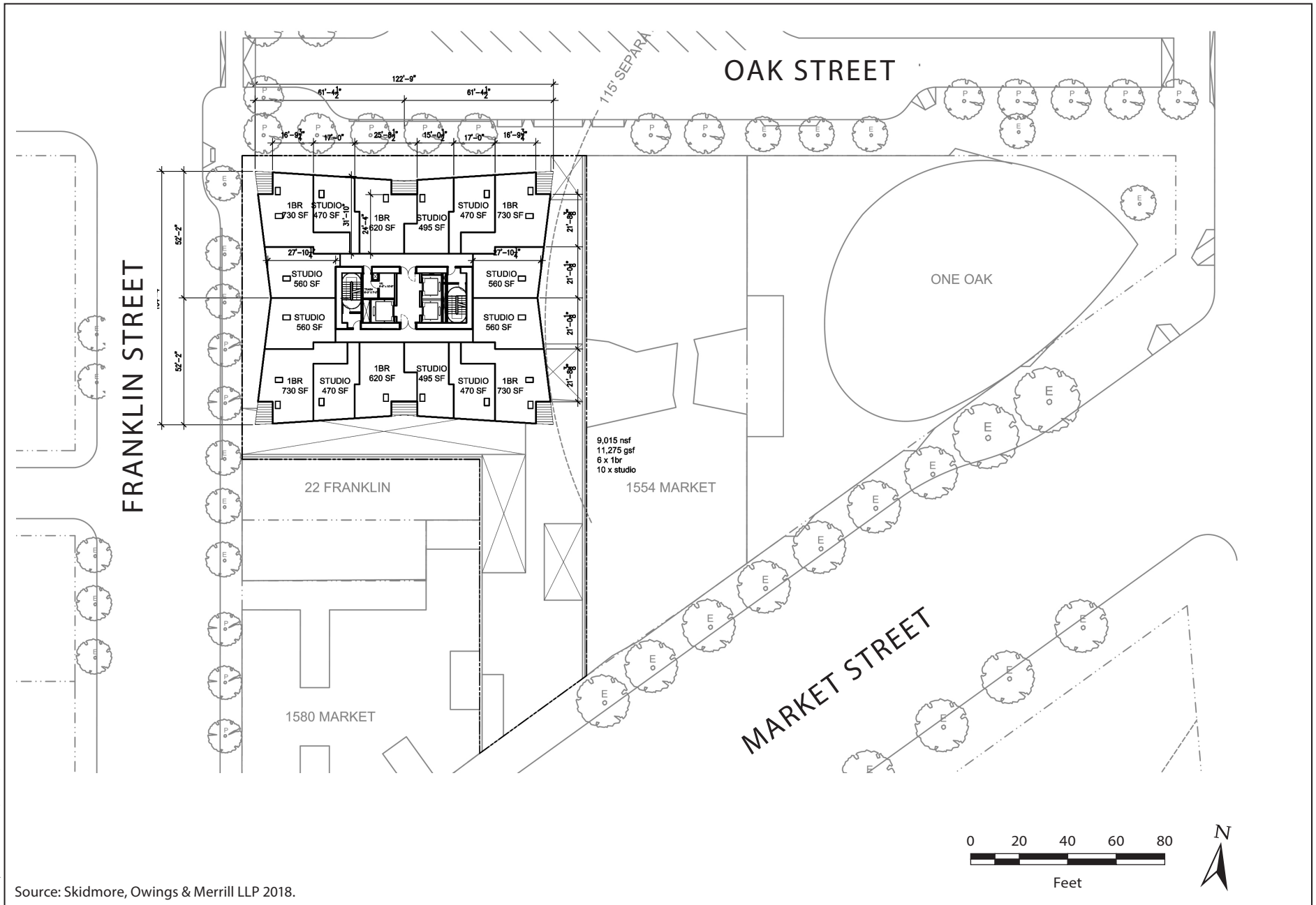
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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Figure 18
98 Franklin Street Project –
Proposed 2nd Level Floor Plan



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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 2016-014802ENV

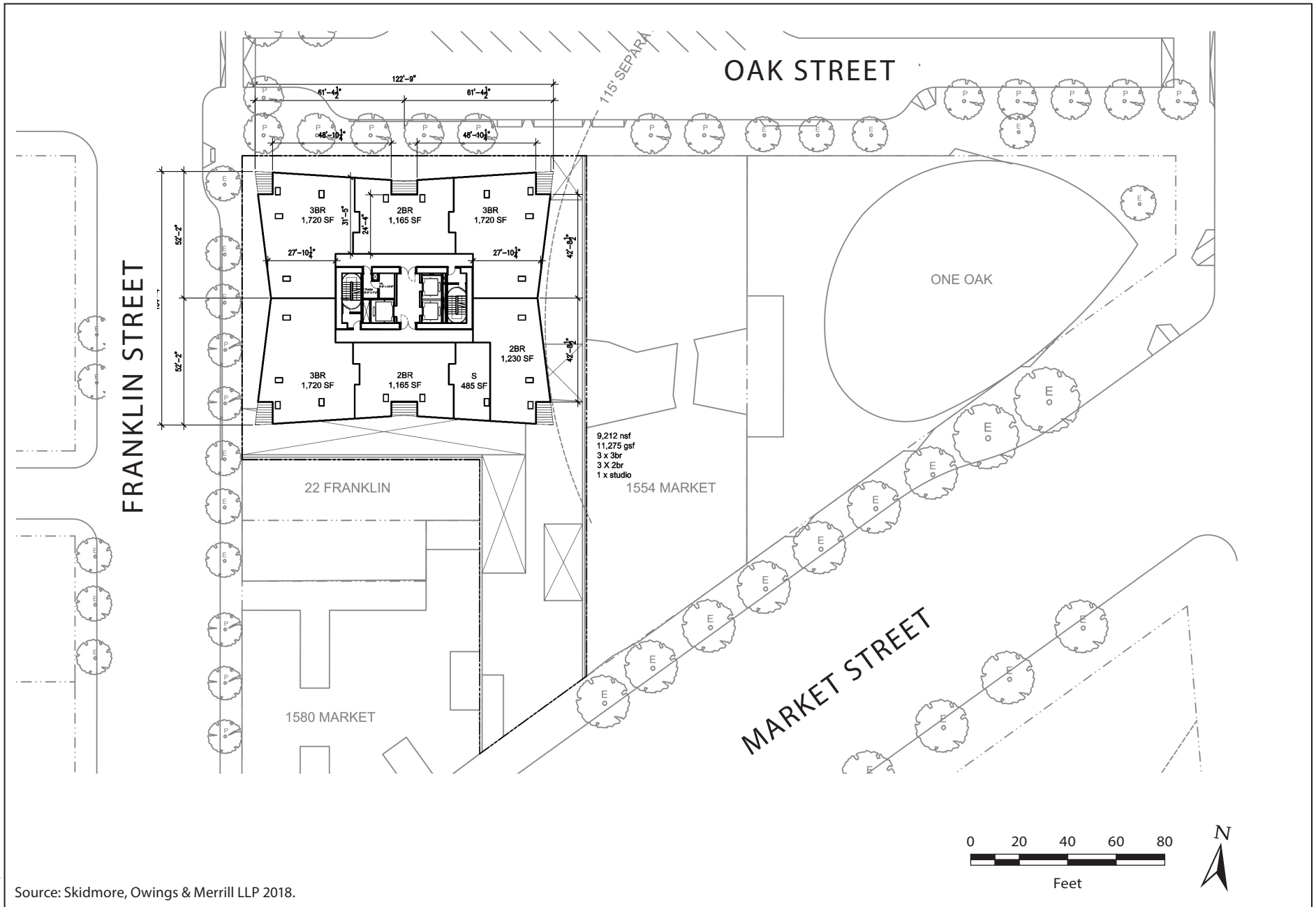
Figure 19
98 Franklin Street Project –
Proposed 3rd Level Floor Plan



Source: Skidmore, Owings & Merrill LLP 2018.

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and Hub Housing Sustainability District (HSD)
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2016-014802ENV

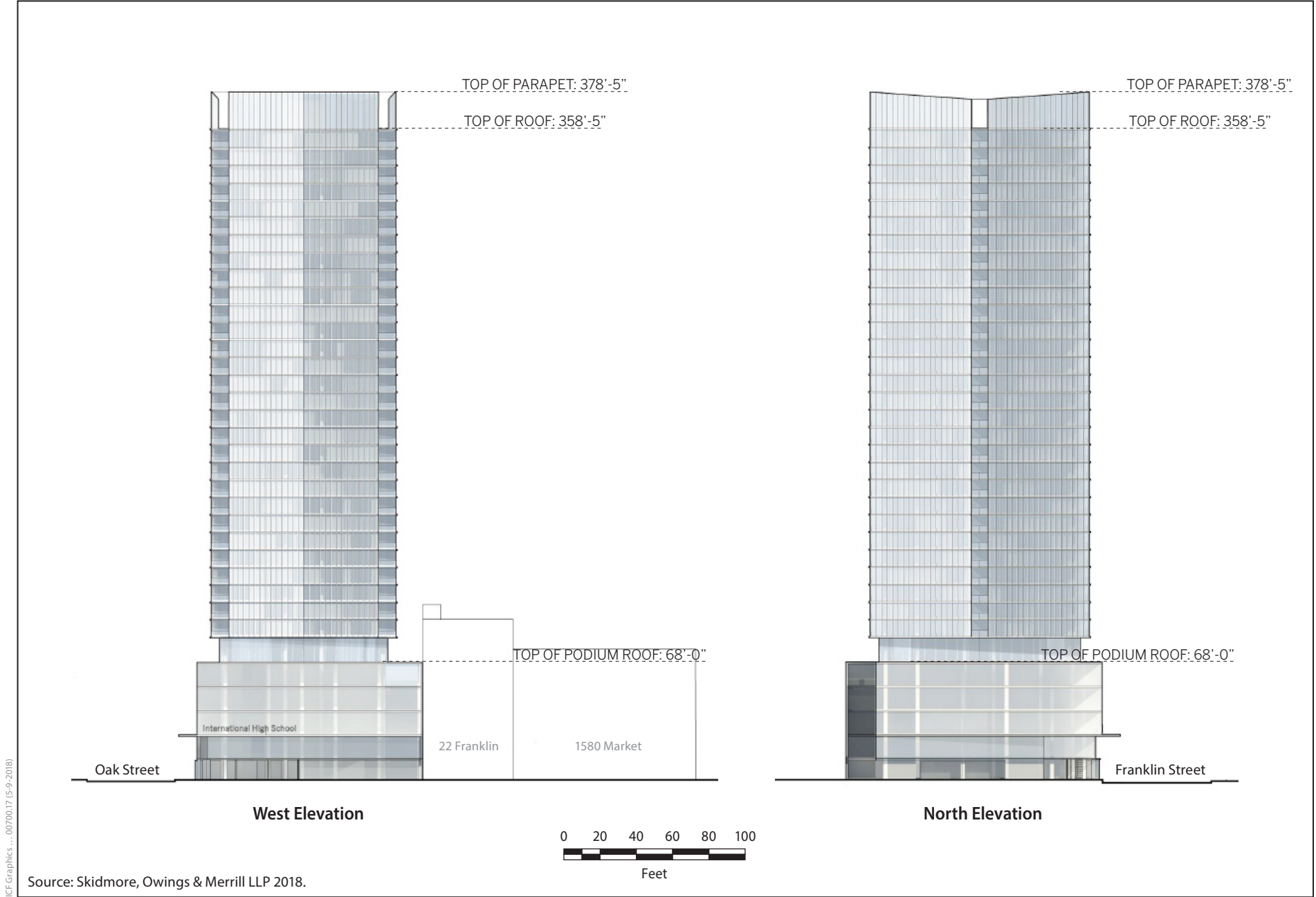
Figure 20
98 Franklin Street Project –
Proposed Lower Tower Floor Plan



Source: Skidmore, Owings & Merrill LLP 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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 2016-014802ENV

Figure 21
98 Franklin Street Project –
Proposed Upper Tower Floor Plan



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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Figure 22
98 Franklin Street Project –
Proposed West and North Elevations

The project would also include 345 class 1 bicycle parking spaces in basement level 1 for residential uses and 144 class 1 bicycle parking spaces for school uses in a room adjacent to the school lobby. On the adjacent sidewalk, 14 class 2 bicycle spaces would be provided for the residential uses and 36 class 2 bicycle parking spaces would be provided for the school.

Loading demand (freight and delivery service) for the building would include residential moving trucks; garbage, compost, and recycling pickup vehicles; and delivery vehicles for residents, school uses, and the retail space. Loading would occur within one off-street truck loading space for freight and the two off-street service-vehicle spaces provided from Oak Street. Trucks would be able to park within the loading berth, which would allow delivery personnel to access the residential, school, and retail uses when making deliveries. The project proposes to provide white-curb loading zones on both Franklin and Oak streets. The loading zone on Franklin Street would accommodate five cars for school-related loading, and Oak Street would accommodate three cars for residential passenger loading. However, parents would be instructed to drop off students in the existing white zones on Oak Street (between Franklin and Gough streets) and on Hickory Street (between Franklin and Gough streets), consistent with the school's current pickup and drop-off plan.

Landscaping and Streetscape Improvements. The project would retain the two trees along the adjacent sidewalk on Market Street and replace the three trees along the adjacent sidewalk on Franklin and Oak streets. The project would also plant four new street trees on Franklin Street and seven on Oak Street. Proposed improvements at Lily Street from Gough Street to Franklin Street (**Figure 6**, p. 11) would include the following:¹⁰

- A mid-block raised intersection to connect the two properties and integrate with special paving, artwork bollards, landscaped bulb-outs, public art on the blank façades of the school, and other place-making and traffic-calming elements.
- Raised crosswalks at the Franklin Street and Gough Street ends of the alley.
- Special paving in the roadway.
- Trees, bollards, and pedestrian lighting.

Foundation and Excavation. The proposed project would construct a type 1 structure, with a mat slab foundation to support the building. The project would excavate approximately 31,670 cubic yards at the site to a depth of 39 feet, all of which would be exported from the site. To accommodate this, the project would require 60 trucks onsite on average per shift per day and a maximum of 90 trucks onsite per shift per day during excavation.

Construction. Construction of the proposed project at 98 Franklin Street would occur in a single phase between 39 and 46 months, from 2020 to 2023, and consist of several stages: (1) demolition, (2) deep foundation work, (3) shoring, (4) excavation, (5) foundation and below-grade construction, (6) above-grade structure construction, (7) exterior finishing, (8) interior finishing, and (9) sidewalk construction and

¹⁰ These improvements could be part of an in-kind fee application. The fee waiver would need to be approved by the San Francisco Planning Commission.

landscaping. The estimated duration of pile driving, which would occur throughout the project site, would be five months. There would be up to three shifts for construction workers on weekdays and weekends: regular shift (6 a.m. to 3 p.m.), swing shift (3 p.m. to 11 p.m.), and night shift (11 p.m. to 7 a.m.).¹¹ An exception to the noise ordinance would need to be approved by the San Francisco Department of Building Inspection (private property) or San Francisco Department of Public Health (public rights-of-way) for project construction between the hours of 8 p.m. and 7 a.m.

Transportation Demand Management Program

Per Planning Code section 169, the proposed projects at 30 Van Ness Avenue and 98 Franklin Street would be required to include a Transportation Demand Management (TDM) Program that would provide a strategy for managing the transportation demands created by the projects.

The Hub Housing Sustainability District

The City, through adoption of an ordinance by the San Francisco Board of Supervisors, could choose to designate portions or all of the Hub Plan area as a HSD in accordance with Government Code sections 66202 to 66210, and Public Resources Code sections 21155.10 and 2155.11. In order to qualify as a HSD the following general requirements must be met:

1. The HSD must be within one-half mile of public transit, or otherwise highly suitable for residential or mixed-use development;
2. The area of an individual district must not be larger than 15 percent of the city's total land area;
3. An ordinance creating the district must include procedures and timelines for review of projects;
4. At least 20 percent of all housing units constructed in the HSD must be affordable to very low, low, and moderate income households for a period of no less than 55 years; and
5. The HSD must allow for the ministerial approval of housing (including mixed-use residential) projects.

The Hub Plan area meets criteria 1 and 2 above, and is anticipated to meet criteria 3 and 4. Any local ordinance creating a HSD would allow for ministerial approval of projects, satisfying criterion 5. The HSD could include all or a subset of parcels within the plan area that are zoned to permit residential use.

In order to participate in a HSD, an individual project would need to:

1. Include at least 10 percent units on-site affordable to lower-income households (in San Francisco, all projects would still be required to satisfy Planning Code section 415 inclusionary requirements, either through providing all inclusionary units on-site, or through a combination of on-site and fee payments);
2. Meet labor standards, including prevailing wage and trained workforce requirements, if meeting certain project size thresholds; and

¹¹ If the building uses pre-cast façade materials, the pre-cast materials would be delivered during evening and early morning hours, potentially until 7 a.m., which would cause a one-hour overlap. This overlap could occur only during the portion of construction when delivery of the pre-cast materials occurs, which is a subset of the overall construction schedule.

3. Meet any adopted design review standards, be approvable through a ministerial process, and incorporate applicable mitigation measures from the EIR evaluating the HSD ordinance (i.e., this Hub Plan and Related Actions EIR).

The HSD could include all parcels within the Hub Plan area that are zoned to permit residential use. Should the plan area be designated as a HSD, implementation of the HSD would not change or intensify the anticipated physical or programmatic parameters of development expected or allowed under the proposed Hub Plan. Eligible projects seeking entitlement under the HSD would be required to meet adopted design review standards be approvable through a ministerial process, and incorporate applicable mitigation measures from the EIR prepared for the Hub HSD. Pursuant to Government Code sections 66202 to 66210, and Public Resources Code sections 21155.10 and 2155.11, subsequent projects in the Hub HSD that meet the requirements of a HSD would not require further environmental review.

REQUIRED PROJECT APPROVALS

This section describes the approvals required for the Hub Plan, the two individual development projects, and the Hub HSD.

The Hub Plan

Actions by the San Francisco Planning Commission:

- Certify EIR
- Initiate general plan amendments
- Recommend to the San Francisco Board of Supervisors general plan amendments, planning code text amendments, and zoning map amendments to update the Market and Octavia Area Plan and change the land use, zoning, and height and bulk classifications in the Hub Plan area

Actions by the San Francisco Board of Supervisors:

- Approve general plan amendments, planning code text amendments, and zoning map amendments to update the Market and Octavia Area Plan and change the land use, zoning, and height and bulk classifications in the Hub Plan area

Actions by the San Francisco Municipal Transportation Agency:

- Approve parking and traffic changes associated with the Hub Plan's circulation changes, streetscape improvements, and street network changes

Actions by the California Department of Transportation (Caltrans):

- Approval of the redesign of South Van Ness Avenue between Mission and 13th streets

Approval of the Hub Plan by the San Francisco Planning Commission and San Francisco Board of Supervisors would also approve the land use and height changes proposed for the individual projects.

30 Van Ness Avenue Project

Actions by the San Francisco Planning Commission:

- Approval of a small office allocation (less than 50,000 square feet), pursuant to Planning Code section 321
- Approval of a downtown project authorization by the planning commission, per Planning Code section 309, for projects within a Downtown Commercial (C-3-G) district totaling more than 50,000 square feet in area or more than 75 feet in height, with exceptions to the requirements of Reduction of Ground-Level Wind Currents in C-3 Districts (Planning Code section 148) and Reduction of Shadows on Certain Public or Publicly Accessible Open Spaces in C-3 Districts (Planning Code section 147)
- Conditional use authorization to exempt the floor area attributed to the on-site inclusionary affordable units from the floor area ratio (Planning Code section 124)
- Approval of potential variances under Planning Code section 305 if required by final design of the building

Actions by the San Francisco Department of Building Inspection:

- Approval and issuance of construction permits

Actions by the San Francisco Municipal Transportation Agency:

- Approval of on-street parking and on-street loading changes

Actions by San Francisco Public Works:

- Approval of any proposed new, removed, or relocated street trees and/or landscaping adjacent to the public sidewalk from the Bureau of Urban Forestry

98 Franklin Street Project

Actions by the San Francisco Planning Commission:

- Approval of a downtown project authorization, pursuant to Planning Code section 309, for new construction or substantial alteration of structures in C-3 Districts, with exceptions to the requirements of Reduction of Ground-Level Wind Currents in C-3 Districts (Planning Code section 148) and Reduction of Shadows on Certain Public or Publicly Accessible Open Spaces in C-3 Districts (Planning Code section 147)
- Conditional use authorization to exempt the floor area attributed to the on-site inclusionary affordable units from the floor area ratio (Planning Code section 124)

Actions by the San Francisco Department of Building Inspection:

- Approval and issuance of demolition and construction permits

Actions by the San Francisco Municipal Transportation Agency:

- Approval of on-street parking/loading changes

Actions by San Francisco Public Works:

- Approval of any proposed new, removed, or relocated street trees and/or landscaping adjacent to the public sidewalk from the Bureau of Urban Forestry

The Hub Housing Sustainability District

Actions by the San Francisco Planning Commission:

- Certify EIR
- Recommend to the San Francisco Board of Supervisors planning code text amendments to designate portions or all of the Hub Plan area as a Housing Sustainability District

Actions by the San Francisco Board of Supervisors:

- Adoption of an ordinance amending the planning code to designate portions or all of the Hub Plan area as a Housing Sustainability District

SUMMARY OF POTENTIAL ENVIRONMENTAL ISSUES

The Hub Plan, the two individual development projects, and the Hub HSD (hereinafter “proposed project”) could result in potentially significant environmental impacts. The San Francisco Planning Department will prepare an initial study (IS) and an EIR to evaluate the physical environmental effects of the proposals in the Hub Plan. An IS will assess both project-specific and cumulative impacts for all topics required under CEQA and will identify which environmental topic areas may be significantly impacted by the project. As required by CEQA, an EIR will further examine those issues identified in the IS to have potentially significant impacts, identify mitigation measures, and analyze whether the proposed mitigation measures would reduce potentially significant environmental impacts to a less-than-significant level. The IS will be published with the Draft EIR, with a 45-day public review period, and included as an appendix to the Draft EIR.

As part of the review process under CEQA, the planning department will convene a public scoping meeting. Public comment will be solicited regarding the issues that will be covered in the EIR (see “Public Scoping Process” of this Notice of Preparation [NOP] for more details). Although subject to change, it is anticipated at this time that the EIR will address the following environmental topics: land use and planning, cultural resources (including tribal cultural resources), transportation and circulation, noise, air quality, and wind and shadow. It is anticipated that environmental impacts related to population and housing, greenhouse gas emissions, recreation, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, hazards and hazardous materials, mineral and energy resources, and agricultural and forestry resources will be analyzed in the IS, unless significant impacts are identified that cannot be mitigated to a less-than-significant level, in which case, any such impacts analysis will be included in the EIR. The environmental issues to be addressed in the IS and the EIR are described briefly below. For all topics below, whether included in the IS or also in the EIR, the analysis will consider the impacts of the proposed project individually as well as cumulative impacts resulting from other reasonably foreseeable projects.

The two individual development projects meet all of the requirements of a transit-oriented infill development project under Senate Bill 743; therefore, aesthetics and parking will not be considered in determining if the two individual development projects have the potential to result in significant environmental effects. However, aesthetics and parking will be evaluated at the programmatic level for the Hub Plan.

Land Use and Planning

The land use and planning analysis will describe existing land uses in the Hub Plan area and in the vicinity of the Hub Plan area and analyze whether the proposed project would physically divide an established community or result in conflicts with the Market and Octavia Area Plan or other land use plans adopted for the purpose of mitigating an environmental impact.

Aesthetics

The aesthetics analysis will include an analysis of the potential impacts of the proposed project related to adverse effects on scenic vistas, substantially damaging scenic resources, substantially degrading visual character and quality, and creating new sources of light or glare.

Population and Housing

The population and housing analysis will include analysis of the potential impact of the proposed project related to population, employment and housing, and residential displacement.

Cultural Resources

The cultural resources analysis will address historic resources, archaeological resources, tribal resources, and human remains. The historic significance of existing buildings within the Hub Plan area is described in various technical reports, survey documentation, and planning department environmental documents. The analysis will include a review of all previously documented resources; an update to survey records, as needed; and new evaluations for age-eligible properties within the Hub Plan area. The analysis will include potential impacts on individual historic resources and districts. A program-level archaeological research design and treatment plan will assess overall archaeological sensitivity of the Hub Plan area and develop a program-level strategy for archaeological investigations; the treatment plan will also cover the two development projects at 30 Van Ness Avenue and 98 Franklin Street at a project-level.

Transportation and Circulation

The proposed project would generate additional person trips, resulting in an increase in vehicle miles traveled (VMT), commercial (freight and delivery service) and passenger loading, and the number of people walking, bicycling, or riding transit. A transportation impact study will be prepared for the Hub Plan, in accordance with the planning department's Transportation Impact Analysis Guidelines and planning commission resolution 19579, which established VMT as the appropriate transportation review standard. The analysis will analyze transit conditions, VMT, traffic hazards, conditions for people walking and bicycling, commercial (freight and delivery service) and passenger loading, emergency vehicle access, and construction-related transportation impacts and determine mitigation measures for impacts that are determined to be significant. The analysis will include potentially significant operational and construction impacts on the transportation and circulation system.

Noise

The noise analysis will include analysis of short-term construction-related noise and vibration impacts that could result from the proposed project. The analysis will evaluate the potential for noise generated by the proposed project to adversely affect nearby sensitive land uses and include a discussion of noise compatibility standards for the proposed land uses.

Air Quality

The air quality analysis will include analysis of the consistency of the proposed project with applicable air quality plans and a quantitative analysis of the potential for the proposed project to result in emissions of criteria air pollutants and other toxic air contaminants that may affect sensitive populations (vulnerable people). The analysis will also discuss the potential for the proposed project to result in sources of odor. The air quality analysis will discuss air pollutant emissions during both construction and operation. The analysis will also summarize the results of a health risk assessment, which will be prepared to evaluate potential long-term health effects from emissions during both construction and operation.

Greenhouse Gas Emissions

The greenhouse gas emissions analysis will address the consistency of the proposed project with the San Francisco Greenhouse Gas Reduction Strategy. The analysis will determine if the proposed project could result in greenhouse gas emissions that would result in a significant impact on the environment.

Wind and Shadow

Changes in wind conditions resulting from the proposed project could substantially affect public areas. As part of the wind analysis a technical study will be prepared for the proposed project to evaluate existing wind conditions within and around the Hub Plan area and determine the extent to which changes in height and bulk limits would result in wind conditions that could substantially affect public areas. The technical study will determine whether changes in wind conditions resulting from the proposed project would result in any net new hazard exceedances, as defined by Planning Code section 148, which sets forth the City's definition of a wind hazard. The analysis will summarize the results of the report and include an analysis of ground-level wind impacts as well as mitigation measures for wind impacts that are determined to be significant.

The shadow analysis will include an evaluation of the potential for the proposed project to result in shadow impacts on City parks and other publicly accessible open spaces. The analysis will be supported by a shadow study that will evaluate the extent to which shadows cast by the changes in height and bulk limits adversely affect City parks and publicly accessible open spaces.

Recreation

The recreation analysis will analyze whether the proposed project would increase the use of existing parks or require the construction or expansion of parks and recreational facilities, which could have a physical effect on the environment.

Utilities and Service Systems

The utilities and service systems analysis will include a discussion of potable water and wastewater treatment capacity as well as the disposal of solid waste that may be generated by the proposed project. This topic will also include an assessment of whether the proposed project would require the construction of new water supply, wastewater treatment, and/or stormwater drainage facilities and, if so, whether that construction could result in adverse environmental effects.

Public Services

The public services analysis will analyze whether existing public service providers (e.g., police and fire protection, schools, parks, or other public facilities) would be adversely affected by the proposed project so as to require new or physically altered facilities, the construction of which could cause significant impacts.

Biological Resources

The biological resources analysis will discuss existing biological resources or habitats that could be affected by the proposed project, such as trees or native resident or migratory bird species, and the potential for the proposed project to result in a substantial adverse effect on these biological resources or habitats.

Geology and Soils

The geology and soils analysis will evaluate the susceptibility of the proposed project to seismic activity, liquefaction, landslides, erosion, soil instability, or risks to life or property. The analysis will also determine if the proposed project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Hydrology and Water Quality

The hydrology and water quality analysis will evaluate the potential of the proposed project to violate water quality standards or waste discharge requirements or result in adverse effects on groundwater supplies. The analysis will also consider the degree to which the proposed project could affect drainage patterns or create water runoff that could affect stormwater drainage systems. The analysis will also consider the potential of the proposed project to place housing within an identified flood hazard area.

Hazards and Hazardous Materials

The hazards and hazardous materials analysis will evaluate the potential for the proposed project to create a significant hazard to the public or the environment related to hazardous materials through the routine transport, use, or disposal of hazardous materials; the emission or release of hazardous material into soils or groundwater; or interference with an emergency response plan.

Mineral and Energy Resources

The mineral and energy resources analysis will evaluate potential impacts of the proposed project related to existing mineral and energy resources.

Agricultural and Forestry Resources

The agricultural and forestry resources analysis will evaluate the potential impacts of the proposed project on existing agricultural and forestry resources.

Other CEQA Issues

The IS and EIR analysis will identify feasible mitigation measures to lessen or reduce significant environmental impacts of the proposed project.

Other topics required by CEQA, including growth-inducing impacts; significant unavoidable impacts; significant irreversible impacts; any known controversy associated with environmental effects, mitigation measures, or alternatives; and issues to be resolved by the decision makers also will be addressed.

ALTERNATIVES

Alternatives to be evaluated in the EIR for the proposed project will include, but not be limited to, a No Project Alternative, which assumes no change to existing conditions in the Hub Plan area, and one or more additional alternatives to address other significant impacts of the proposed project identified in the EIR. The alternatives considered and the analysis thereof will be based on the criteria of the State CEQA Guidelines, section 15126.6 (Consideration and Discussion of Alternatives to the Proposed Project).

FINDING

This project may have a significant effect on the environment and an EIR is required. This determination is based on the criteria of the State CEQA Guidelines, sections 15063 (Initial Study), 15064 (Determining Significant Effect), and 15065 (Mandatory Findings of Significance). The purpose of the EIR is to provide information about potential significant physical environmental impacts of the proposed project and identify possible ways to minimize the significant impacts. The EIR also describes and analyzes possible alternatives to the proposed project. Preparation of an NOP or EIR does not indicate a decision by the City to approve or to disapprove a proposed project. However, prior to making any such decision, the decision makers must review and consider the information contained in the EIR.

PUBLIC SCOPING PROCESS

Pursuant to California Public Resources Code section 21083.9 and State CEQA Guidelines section 15206, a public scoping meeting will be held to receive oral comments concerning the scope of the EIR. The meeting will be held on **June 12 from 6:00 p.m. until 8:00 p.m. at 170 Otis Street, 1st Floor, Born Auditorium, San Francisco, California 94103.** To request a language interpreter or accommodate persons with disabilities at the scoping meeting, please contact the staff contact at least 72 hours in advance of the meeting. Written comments will also be accepted at this meeting and until 5 p.m. on June 22, 2018. Written comments should be sent to Alana Callagy, San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA 94103 or Alana.Callagy@sfgov.org and should reference the project title and case numbers provided on the front of this notice.

State Agencies: If you work for a responsible state agency, we need to know the views of your agency regarding the scope and content of the environmental information that is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency may need to use the EIR when considering a permit or other approval for this project. Please include the name of a contact person in your agency.

Notice of Preparation of an EIR
May 23, 2018

Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV
The Hub Plan, 30 Van Ness Avenue, 98 Franklin Street, and
Hub Housing Sustainability District (HSD)

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

May 23, 2018

Date

Lisa Gibson

Lisa Gibson

Environmental Review Officer

APPENDIX A-2

COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)

Written Comments

Name	Organization/Affiliation	Date	Topic	Comment
Public Agency Comments				
Patricia Maurice	Caltrans	6/21/2018	Project Clarification	Please clarify the type of planning document The Hub Plan represents. Is The Hub Plan a Specific Plan? Also, please clarify the total build-out of The Hub Plan in square feet.
Patricia Maurice	Caltrans	6/21/2018	Transportation	Submit the completed TIA including the redesign proposed on US 101 (South Van Ness) and potentially significant operational and construction impacts on the transportation and circulation system for Caltrans to review. The proposed development could change traffic patterns, vehicle trips, and delay on our existing traffic signals at US 101 (Van Ness Avenue) between Duboce Avenue and MC Allister Street. As a result, possible signal timing adjustments may be required due to the proposed residential/commercial development. Signal-related work will have to be coordinated, reviewed, and approved by the Caltrans' Office of Signal Operations. Also, additional through traffic lanes may be required.
Patricia Maurice	Caltrans	6/21/2018	Encroachment Permit	Any work or traffic control that encroaches onto State ROW requires an encroachment permit. Traffic mitigation measures should be incorporated into the construction plans prior to encroachment permit process.
Patricia Maurice	Caltrans	6/21/2018	Lead Agency	The Project's fair-share contribution, financing, scheduling, and implementation responsibilities should be discussed in all mitigation measures. Draft EIR should be submitted to MTC, ABAG, and SFMTA for review and comment.
Neighborhood Associations				
Jason Hendersen	Hayes Valley Neighborhood Associate (HVNA)	6/22/2018	Transit Capacity	Hub should not exacerbate San Francisco's already overloaded transportation infrastructure. How will the existing transit system take on new passengers at this bottleneck in the system?

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)

Written Comments

Name	Organization/Affiliation	Date	Topic	Comment
Jason Hendersen	Hayes Valley Neighborhood Associate (HVNA)	6/22/2018	VMT	The current threshold of significance (85% of 17 miles per day) used to analyze per capita daily vehicle miles travel (VMT) and localized impacts of VMT should not be use for the Hub. Van Ness and Market has a VMT of less than 5 miles per capita, per day, and this project should be analyzed with that 5 mile per capita VMT as the threshold of significance. Furthermore, this project should be analyzed with a threshold of 1 VMT per capita, because the tolerance for more VMT is zero.
Jason Hendersen	Hayes Valley Neighborhood Associate (HVNA)	6/22/2018	Alternatives	The EIR for the Hub should analyze a project alternative with zero parking and a project alternative with 0.25:1 parking ratio. It should also conduct analysis of 12th Street between Market and Mission with an alternative of closing the street to motorized traffic. The EIR should also study options that require forced right turns off of Market Street at Gough, to optimize the limited space on inbound Market for cycle tracks and transit first lanes.
Jason Hendersen	Hayes Valley Neighborhood Associate (HVNA)	6/22/2018	Wind	The EIR should include analysis of wind impacts on bicyclists, and potential mitigation.
Jason Hendersen	Hayes Valley Neighborhood Associate (HVNA)	6/22/2018	Loading	The EIR must consider the localized swarming of TNC's that may occur in the Hub and must discuss mitigation for loading impacts for residential e-commerce and TNC passengers.
Alexandra Goldman	Tenderloin Neighborhood Development Corporation (TNDC)	6/21/2018	Walkable Streets	Would like to see a community process where community members, directly impacted by future construction and development, can give feedback on what safer and more walkable streets means to them. Further, we want to ensure that "safer" streets does not mean the removal of our homeless neighbors, but instead means some real solutions, such as the provision of deeply affordable housing.
Alexandra Goldman	Tenderloin Neighborhood Development Corporation (TNDC)	6/21/2018	Community Benefits	What incentives and/or fees, beyond the City's Inclusionary policy, will be applied to create more affordable housing and other community benefits, especially to projects which may benefit from increased height and/or density?

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)

Written Comments

Name	Organization/Affiliation	Date	Topic	Comment
Alexandra Goldman	Tenderloin Neighborhood Development Corporation (TNDC)	6/21/2018	Housing	We ask that the scope of environmental review include a thorough analysis of the cumulative social impact of potential housing and office developments, including both the Hub and the surrounding Mid-Market area, and a discussion of appropriate steps to mitigate the project's impacts on the lower income Tenderloin and SOMA community. Will the Hub create the conditions for enough affordable housing, and at affordable enough rents, to accommodate employees of the new jobs that will be created?
Public/Individual Comments				
Anna Sojourner	Neighborhood Resident	6/15/2018	Parking	Recommends zero private parking for all of these new developments in the neighborhood.
Bob Anderson	Neighborhood Resident	6/12/2018	Wind	Concerned about the lack of study and mitigation for the wind issues on cyclist and pedestrians
Bob Anderson	Neighborhood Resident	6/12/2018	Transportation	Concerned about the poor understanding of the effects on ridesharing and increased deliveries
Bob Anderson	Neighborhood Resident	6/12/2018	Transit Capacity	Concerned about the non-existent plans to increase mass transit in the area
Bob Anderson	Neighborhood Resident	6/12/2018	Parking	Concerned about the high number of parking spaces proposed

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)

Oral Comments

Name	Organization/Affiliation	Topic	Comment
Jason Henderson	Hayes Valley Neighborhood Associate (HVNA)	Wind	Need to analyzed wind impacts on pedestrians and bicyclists better.
Jason Henderson	Hayes Valley Neighborhood Associate (HVNA)	VMT	Should use a VMT of 0 as a threshold of significance
Jason Henderson	Hayes Valley Neighborhood Associate (HVNA)	Loading	Need to look at the effect of TNCs and how they affect pedestrians and transit, in addition to Chariot, Google buses, and deliveries
Jason Henderson	Hayes Valley Neighborhood Associate (HVNA)	Alternatives	Should analyze an option where 12th Street is turned into a park; other turning options on Gough/Van Ness; wider bicycle path on Market Street
James Marshall	Hayes Valley Neighborhood Associate (HVNA)	Loading	EIR should analyze effects from deliveries in a serious manner
James Marshall	Hayes Valley Neighborhood Associate (HVNA)	Transit Capacity	This project should coordinate on increasing transit capacity in the area
James Marshall	Hayes Valley Neighborhood Associate (HVNA)	Parking	Impacts of parking should be included, 0.25 threshold should not be exceeded.
James Marshall	Hayes Valley Neighborhood Associate (HVNA)	Alternatives	Should analyze 12th street as a recreational street

APPENDIX B: INITIAL STUDY

INITIAL STUDY TABLE OF CONTENTS

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District

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A. PROJECT DESCRIPTION

The project description for the Hub Plan,¹ 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD) is included as Chapter 2, Project Description, in the draft environmental impact report (EIR) to which this initial study is appended.

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

B. PROJECT SETTING

The project setting for the Hub Plan,² 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub HSD is included as Chapter 2, Project Description, in the draft EIR to which this initial study is appended.

² The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

C. COMPATIBILITY WITH EXISTING ZONING AND PLANS

	<i>Applicable</i>	<i>Not Applicable</i>
Discuss any variances, special authorizations, or changes proposed to the planning code or zoning map, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any conflicts with any adopted plans and goals of the City or region, if applicable.	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Discuss any approvals and/or permits from city departments other than the planning department or the Department of Building Inspection or from regional, state, or federal agencies.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1. SAN FRANCISCO PLANNING CODE

The planning code incorporates the City and County of San Francisco’s (City’s) zoning maps, implements the San Francisco General Plan, and governs permitted uses, densities, heights and bulks, and the configuration of buildings within San Francisco. Permits to alter existing buildings, construct new buildings, or demolish existing buildings may not be issued unless 1) the proposed project conforms to the planning code, 2) an allowable exception is granted pursuant to provisions of the planning code, or 3) amendments to the planning code are included as part of the project.

Implementation of the Hub Plan³ would require revisions to the planning code, including revisions regarding existing zoning districts and height and bulk districts, and the addition of a special use district in the Hub Plan area, as described in Chapter 2, Project Description, Section D, The Hub Plan Components, of the Draft EIR. The proposed general plan amendment, planning code text amendments, and zoning map amendments to update the Market and Octavia Area Plan; change the land use, zoning, and height and bulk classifications of the Hub Plan area; and otherwise implement the Hub Plan would be subject to approvals by the planning commission and board of supervisors. Designation of portions or all of the Hub Plan area as an HSD would also require planning code text amendments as well as amendments to the San Francisco Business and Tax Regulations Code, which would require approval by the planning commission and board of supervisors.

If the EIR is certified by the planning commission, the commission would make recommendations to the board of supervisors. The board of supervisors would then have the ability to approve the Hub Plan and related planning code amendments, which would include the land use and height and bulk changes proposed for the individual development projects.

³ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

Both individual development projects would require approval of a Downtown Project Authorization by the planning commission, per Planning Code section 309, for projects within a Downtown Commercial (C-3-G) district that would be more than 50,000 square feet in area or more than 75 feet in height as well as conditional use authorization to exempt the floor area attributed to the onsite inclusionary below-market-rate units from the required floor area ratio, per Planning Code section 124. The 30 Van Ness Avenue Project would also require approval for office allocation, pursuant to Planning Code section 321, and might require approval of potential variances under Planning Code section 305⁴ if required by final design of the building.

2. PLANS AND POLICIES

GENERAL PLAN

The San Francisco General Plan provides general policies and objectives to guide land use decisions. The general plan contains 10 elements (commerce and industry, recreation and open space, housing, community facilities, urban design, environmental protection, transportation, air quality, community safety, and arts) that set forth goals, policies, and objectives for physical development of the city. The general plan also contains many area plans, which provide more specific policy direction for certain neighborhoods, primarily on the east side of the city. The Hub Plan, which would amend the 2008 Market and Octavia Area Plan, is a comprehensive plan for the easternmost portions of the Market and Octavia Area Plan.

As described in Chapter 2, Project Description, Section G, Project Approvals, of the Draft EIR, in addition to amendments to the Market and Octavia Area Plan, adoption of the proposed Hub Plan would also require amendments to other elements of the general plan to conform to the concepts of the Hub Plan. Such amendments to the general plan would be reviewed by the planning commission and recommended to the board of supervisors for approval. Upon board of supervisors approval, such amendments would be incorporated into the general plan.

PRIORITY POLICIES

In November 1986, the voters of San Francisco approved Proposition M, the Accountable Planning Initiative, which added Planning Code section 101.1 to establish eight Priority Policies. Prior to issuing a permit for any project that requires an initial study under the California Environmental Quality Act (CEQA); issuing a permit for any demolition, conversion, or change in use; or taking any action that requires a finding of consistency with the general plan, the City is required to find that the plan or legislation is consistent with the Priority Policies. As noted

⁴ Planning Code section 305 governs the approval or disapproval of variances from the planning code. A variance is a deviation from the set of rules a municipality applies to land use and land development, typically a zoning ordinance, building code, or municipal code.

above, the consistency of the Hub Plan, the individual development projects, and the Hub HSD with the environmental topics associated with the Priority Policies is discussed in Section E, Evaluation of Environmental Effects, or in the EIR.

The Priority Policies pertain to (1) the preservation and enhancement of neighborhood-serving retail uses, (2) protection of neighborhood character, (3) preservation and enhancement of below-market-rate housing, (4) discouragement of commuter automobiles, (5) protection of industrial and service land uses from commercial office development and enhancement of resident employment and business ownership, (6) maximization of earthquake preparedness, (7) landmark and historic building preservation, and (8) protection of open space.

Priority Policies (1) and (5) are addressed in Section E.1, Land Use and Planning; Priority Policy (2) is addressed in Section E.2, Aesthetics; Priority Policy (3) is addressed in Section E.3, Population and Housing; Priority Policy (4) is addressed in Section 3.B, Transportation and Circulation, in the EIR; Priority Policy (6) is discussed in Section E.14, Geology and Soils; Priority Policy (7) is discussed in Section 3.A, Cultural Resources, in the EIR; and Priority Policy (8) is addressed in both Section E.10, Recreation, Section 3.E, Wind, and Section 3.F, Shadow, in the EIR.

Both the initial study and EIR provide information for use in the case report for the proposed project. The case report and approval motions for the Hub Plan, the individual development projects, and the Hub HSD will contain the San Francisco Planning Department's (department's) comprehensive project analysis and findings regarding consistency of the Hub Plan, the individual development projects, and the Hub HSD with the Priority Policies.

REGIONAL PLANS

Environmental plans and policies directly address physical environmental issues or contain targets or standards that must be met in order to preserve or improve the city's physical environment. These include the Bay Area Air Quality Management District's (BAAQMD's) *Bay Area 2017 Clean Air Plan*⁵ and *Bay Area 2005 Ozone Strategy*⁶ and the San Francisco Bay Regional Water Quality Control Board's (RWQCB's) *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*.⁷

⁵ Bay Area Air Quality Management District, *2017 Clean Air Plan: Spare the Air, Cool the Climate*, April 19, 2017, http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a-_proposed-final-cap-vol-1-pdf.pdf?la=en, accessed: February 2, 2018.

⁶ Bay Area Air Quality Management District, *Bay Area 2005 Ozone Strategy*, 2006, http://www.baaqmd.gov/~media/files/planning-and-research/plans/2005-ozone-strategy/adoptedfinal_vol1.pdf, accessed: February 2, 2018.

⁷ San Francisco Regional Water Quality Control Board, *Water Quality Control Plan for the San Francisco Bay Basin*, December 16, 2015, https://www.waterboards.ca.gov/sanfranciscobay/water_issues/programs/planningtmdls/basinplan/web/bp_ch1-7_print.html, accessed: February 2, 2018.

The other principal regional planning agencies in the San Francisco Bay Area with policies to guide planning in the region include *Plan Bay Area 2040*⁸ from the Metropolitan Transportation Commission (MTC) and Association of Bay Area Governments (ABAG) and *San Francisco Bay Plan* from the San Francisco Bay Conservation and Development Commission.⁹

Plan Bay Area is the Regional Transportation Plan/Sustainable Communities Strategy adopted for the Bay Area by ABAG and MTC in fulfillment of the requirements of Senate Bill 375 (2008). The purpose of Senate Bill 375 is to meld regional transportation planning with land use strategies to reduce future greenhouse gas (GHG) emissions and meet regional targets. Pursuant to Senate Bill 375, Plan Bay Area identifies transit priority project areas and planned development areas, which are intended to accommodate future urban development as well as planned conservation areas that provide habitat, agricultural, and other benefits within the region.

APPROVALS AND PERMITS

Approval actions to implement the Hub Plan and the individual development projects are listed in Chapter 2, Project Description, Section G, Project Approvals, of the Draft EIR.

CONSISTENCY WITH PLANS AND POLICIES

Section E.1, Land Use and Planning, and the EIR discuss the Hub Plan's proposed changes to the general plan. They also describe the Hub Plan, the individual development projects, and the Hub HSD in the context of the citywide planning framework, with reference to other planning efforts in the city, including the Market and Octavia Area Plan, the San Francisco Municipal Transportation Agency's (SFMTA's) Muni Forward, the San Francisco Bicycle Plan, the Better Streets Plan, and others. The transportation section of the EIR discusses the interaction between the future Better Market Street Plan and the Hub Plan and how they are compatible. The EIR and various sections of this initial study also discuss inconsistencies with the regional plans noted above.

⁸ Metropolitan Transit Commission and Association of Bay Area Governments, *Plan Bay Area 2040: Regional Transportation Plan and Sustainable Communities Strategy for the San Francisco Bay Area 2017–2040, Final*, July 26, 2017, <http://files.mtc.ca.gov/library/pub/30060.pdf>, accessed: February 2, 2018.

⁹ Bay Conservation and Development Commission, *San Francisco Bay Plan, 1969*, https://www.bcdc.ca.gov/plans/sfbay_plan#2, accessed: July 6, 2019.

D. SUMMARY OF ENVIRONMENTAL EFFECTS

The proposed project could affect the environmental factors checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Hydrology and Water Quality
<input type="checkbox"/> Aesthetics	<input checked="" type="checkbox"/> Wind	<input type="checkbox"/> Hazards and Hazardous Materials
<input type="checkbox"/> Population and Housing	<input checked="" type="checkbox"/> Shadow	<input type="checkbox"/> Mineral Resources
<input checked="" type="checkbox"/> Cultural Resources	<input type="checkbox"/> Recreation	<input type="checkbox"/> Energy
<input checked="" type="checkbox"/> Tribal Cultural Resources	<input type="checkbox"/> Utilities and Service Systems	<input type="checkbox"/> Agriculture and Forestry Resources
<input checked="" type="checkbox"/> Transportation and Circulation	<input type="checkbox"/> Public Services	<input type="checkbox"/> Wildfire
<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Mandatory Findings of Significance
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Geology and Soils	

1. EFFECTS FOUND TO BE POTENTIALLY SIGNIFICANT

The Hub Plan,¹⁰ the two individual development projects, and the Hub HSD have been evaluated to determine whether any of the project's components, including the streetscape and street network improvements, the subsequent development projects associated with the Hub Plan, the two individual development projects, and the Hub HSD, could result in significant environmental impacts. The Hub Plan and the two individual development projects, and the Hub HSD could have a significant effect on:

- (1) **Cultural resources** (historical and archaeological) because of the potential for such resources to be disturbed by any of the project's components, including subsequent development projects within the Hub Plan area, the streetscape and street network improvements, the individual development projects, and the Hub HSD;
- (2) **Transportation and circulation** because implementation of any of the project's components, including the Hub Plan, subsequent development projects within the Hub Plan area, the two individual development projects, and the Hub HSD, could conflict with policies concerning the circulation system, including policies related to people walking, bicycling, riding transit, driving, and loading;

¹⁰ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

- (3) **Noise** because any of the project's components, including subsequent development projects in the Hub Plan area, the streetscape and street network improvements, the two individual development projects, and the Hub HSD, could create construction noise and vibration and operational noise and vibration;
- (4) **Air quality** because any of the project's components, including construction and operation of subsequent development projects in the Hub Plan area, the streetscape and street network improvements, the two individual development projects, and the Hub HSD, could increase emissions of criteria air pollutants and expose sensitive receptors to more pollutants;
- (5) **Wind** because any of the project's components, including subsequent development projects in the Hub Plan area, the streetscape and street network improvements, the two individual development projects, and/or the Hub HSD, could result in the construction of new buildings that could adversely affect wind speeds at the level of people walking; and
- (6) **Shadow** because any of the project's components, including subsequent development projects in the Hub Plan area, the streetscape and street network improvements, the two individual development projects, and/or the Hub HSD, could result in increased height limits, which could result in a substantial amount of net new shadow.

Accordingly, these topics are further analyzed and included in the EIR to determine if such impacts would be significant and identify and evaluate mitigation that may lessen potential impacts.

2. EFFECTS FOUND NOT TO BE SIGNIFICANT

The department determined that none of the project's components, including the streetscape and street network improvements, the subsequent development projects associated with the Hub Plan, the two individual development projects, and the Hub HSD, would have a significant adverse effect on the environment related to the topics that were not checked in the initial study checklist above. Specifically, impacts related to the following were found not to be significant: land use and planning, aesthetics, population and housing, GHG emissions, recreation, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, hazards and hazardous materials, mineral resources, energy, agriculture and forestry resources, and wildfire. Impacts related to tribal cultural resources, biological listed species, and paleontological resources were determined to be less than significant with mitigation measures incorporated; the mitigation measures are included in this initial study. This initial study explains the reasons for determining that these impacts would not be significant. These topics are discussed below and are not analyzed further in the EIR.

E. EVALUATION OF ENVIRONMENTAL EFFECTS

This initial study examines the potential effects on the environment that would result from implementation of any of the project's components, including the Hub Plan,¹¹ the two individual development projects, and the Hub HSD. For all items checked "Less than Significant with Mitigation Incorporated," "Less-than-Significant Impact," "No Impact," or "Not Applicable," the department has determined that the Hub Plan, the two individual development projects, and the Hub HSD would not have a significant adverse environmental effect that could not be mitigated to a less-than-significant level. These issues are discussed below, and conclusions regarding effects are based on substantial evidence and standard reference material available from the department, such as the department's *Transportation Impact Analysis Guidelines for Environmental Review*.

For each checklist question analyzed, the evaluation has considered the impacts of the Hub Plan, the two individual development projects, and the Hub HSD, individually and cumulatively. Cumulative development includes development surrounding and within the Hub Plan area that would occur under buildout of local area plans (such as the Central SoMa Area Plan), transportation plans and related projects (such as San Francisco Public Works' [public works'] Better Market Street Project), and other local development projects.

AESTHETICS AND VEHICULAR PARKING ANALYSIS

On September 27, 2013, Governor Brown signed Senate Bill 743, effective January 1, 2014. Among other provisions, Senate Bill 743 amended CEQA by adding Public Resources Code section 21099, which states that aesthetic and vehicular parking impacts from residential, mixed-use residential, or employment-center infill projects in transit priority areas are not considered significant impacts on the environment under CEQA.¹² Accordingly, a project that meets the following criteria would not result in significant environmental impacts related to aesthetics or vehicular parking:

- a) The project is on an infill site,
- b) The project is in a transit priority area, or
- c) The project is a residential, mixed-use residential, or an employment-center use.

¹¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

¹² Public Resources Code section 21099(d).

The individual development projects at 30 Van Ness Avenue and 98 Franklin Street meet each of the three criteria above because they would be (1) located on infill sites that are already developed and/or are surrounded by other urban development, (2) located within 0.5 mile of several rail and bus transit routes, and (3) considered primarily residential projects or mixed-use residential projects with office,¹³ institutional, retail, and restaurant uses.^{14,15}

The 30 Van Ness Avenue Project does not meet the Vehicle Miles Traveled (VMT) Analysis – Screening Criterion under Public Resources Code section 21099 because the project proposes more parking than the amount allowed by the planning code without a conditional use authorization.¹⁶ The 30 Van Ness Avenue Project proposes 243 parking spaces and between 350 to 610 dwelling units; conservatively, the highest parking-space-per-dwelling-unit ratio would be 0.69. This parking-space-per-dwelling-unit ratio would be higher than the space-per-dwelling-unit control for the the Van Ness and Market Downtown Residential Special Use District (0.25) and slightly higher than the existing neighborhood residential parking rate of 0.56 space per unit. However, given that existing residential daily VMT per capita for the Transportation Analysis Zone¹⁷ (2.5) is substantially lower than the threshold of 15 percent below regional daily residential VMT per capita, it is unlikely that the proposed project’s parking-space-per-dwelling-unit ratio, which is slightly higher than existing neighborhood rate, would exceed the residential VMT threshold. The 98 Franklin Street Project meets the VMT Analysis – Screening Criterion.¹⁸

Thus, this initial study does not consider aesthetics and the adequacy of vehicular parking in determining the significance of project impacts under CEQA for the two individual development projects. Project plans for each of the individual development projects are included in Chapter 2, Project Description, of the Draft EIR for informational purposes. However, the Hub Plan and Hub HSD do not meet the Senate Bill 743 criteria, which are not

¹³ The 30 Van Ness Avenue Project proposes 350,000 square feet of office uses.

¹⁴ San Francisco Planning Department, *Transit-oriented Infill Project Eligibility Checklists for the 30 Van Ness Avenue Project*, April 19, 2019. This document (and all documents cited in this initial study unless otherwise noted) is available for review on the San Francisco Property Information Map, which can be accessed at <https://sfplanninggis.org/PIM/>. Individual files can be viewed by clicking on the Planning Applications link, clicking on the “More Details” link under the project’s environmental case number (2015-000940ENV, 2017-008051ENV or 2016-014802ENV), and clicking on the “Related Documents” link.

¹⁵ San Francisco Planning Department, *Transit-oriented Infill Project Eligibility Checklists for the 98 Franklin Street Project*, April 19, 2019.

¹⁶ San Francisco Planning Department, *Transit-oriented Infill Project Eligibility Checklists for the 30 Van Ness Avenue Project*, April 19, 2019.

¹⁷ Transportation Analysis Zones are used by planners as part of transportation planning models for transportation analyses and other planning purposes.

¹⁸ San Francisco Planning Department, *Transit-oriented Infill Project Eligibility Checklists for the 98 Franklin Street Project*, April 19, 2019.

applicable to large-scale land use plans. Therefore, this initial study considers aesthetics and the adequacy of vehicular parking in determining the significance of project impacts under CEQA for the Hub Plan and Hub HSD.

Public Resources Code section 21099 states that a lead agency maintains the authority to consider aesthetic impacts, pursuant to local design review ordinances or other discretionary powers, and that aesthetic impacts, as addressed by the revised Public Resources Code, do not include impacts on historical or cultural resources. As such, the department may still consider aesthetics during design and historic review. Similarly, the department acknowledges that vehicular parking conditions may be of interest to the public and the decision-makers. Therefore, the EIR presents a vehicular parking demand analysis for informational purposes and considers any secondary physical impacts associated with a constrained supply (e.g., queuing by drivers accessing onsite vehicular parking spaces that affects the public right-of-way), as applicable, in the transportation analysis.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
1. LAND USE AND PLANNING. Would the project:					
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a significant physical environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

EXISTING LAND USES WITHIN THE HUB PLAN AREA

The existing Hub Plan area is developed and highly urbanized, consisting of a wide variety of land uses. The following general land uses exist in the Hub Plan area: neighborhood-serving retail, nonresidential mixed-use, residential, residential mixed-use, cultural/institutional/educational, office, and open space. The descriptions below present examples of the specific uses that are present within, or in the vicinity of, the Hub Plan area.

NEIGHBORHOOD-SERVING RETAIL, CULTURAL/INSTITUTIONAL/EDUCATIONAL, AND OFFICE USES

Neighborhood-serving retail currently operates on segments of Franklin, Gough, Lily, Page, Rose, and Market streets, near housing and transit. Retail uses are predominately on the ground floor, with residential and commercial uses above. Because of the scale and heights of the buildings, building frontages, and narrow sidewalk widths, retail activities along these streets create a close-knit neighborhood atmosphere. Local-serving retail uses, such as corner “mom-and-pop” stores, laundromats, and coffee houses, are also interspersed on residential streets in the Hub Plan area.

Market Street provides the major retail area for the Hub Plan area. West of Van Ness Avenue, retail land uses on Market Street transition east to west from large-scale retail uses, such as furniture and mattress stores, to smaller retail uses, such as coffee shops, restaurants, and laundromats. East of Van Ness Avenue, retail uses are dominated by ground-floor retail within commercial or residential mixed-use buildings.

The Hub Plan area contains several cultural and educational destinations as well. These include the San Francisco Conservatory of Music at 50 Oak Street, the New Conservatory Theater Center at 25 Van Ness Avenue, French American International School (FAIS) at 150 Oak Street, and the San Francisco Girls Chorus at 44 Page Street. These uses are concentrated north of Market Street, between Van Ness Avenue and Gough Street. In addition, the administrative offices for the City College of San Francisco are located at 33 Gough Street, south of Market Street.

A concentration of high-density office uses is also located around the Market Street and Van Ness Avenue intersection, typically including ground-floor retail. Office uses in the Hub Plan area are generally geared toward professional trades, technology, and government/institutional uses. These include buildings that house Bank of America, Square, and Uber as well as several institutional uses, including SFMTA, public works, the San Francisco Retirement System, San Francisco County Transportation Authority, and the department.

RESIDENTIAL USES

Residential uses within the Hub Plan area are mostly within older two- to four-story buildings near Market and Fell streets, Market and Gough streets, and along McCoppin and Franklin streets. Mixed-use buildings are also scattered throughout the Hub Plan area along major streets such as Gough, Franklin, Market, and Mission streets. Apartment buildings, located mostly near major intersections, range in height from four to eight stories.

A large amount of new residential development has occurred in and near the Hub Plan area in recent years north of Market Street. At Van Ness Avenue and Fell Street, a commercial high-rise building (100 Van Ness) was renovated and converted to a mixed-use building with ground-floor retail and residential uses. At 1699 Market Street, residential uses are under construction. At 1546–1564 Market Street, a 12-story, 110-unit residential building is under construction, and at 22–24 Franklin Street, an eight-story mixed-use building is under construction.

PARKS AND OPEN SPACES

The Hub Plan area encompasses an intensely developed urban area that does not contain large regional park facilities. The two recreational facilities managed by the San Francisco Recreation and Park Department (RPD) within the Hub Plan area are the SoMa West Skate Park and SoMa West Dog Park. The approximately 0.6-acre SoMa West Skate Park is located under U.S. 101 at Stevenson Street and Duboce Avenue. Adjoining the skate park is the SoMa West Dog Park, which is similarly located under U.S. 101 at the corner of Stevenson Street and Duboce Avenue. McCoppin Hub, a 0.1-acre publicly accessible open space under the jurisdiction of public works, is also present within the Hub Plan area. McCoppin Hub extends east–west, from the cul-de-sac where McCoppin Street terminates at the Central Freeway to Valencia Street on the east. McCoppin Hub features seating areas, palm trees, light landscaping, and landings for food trucks, art/craft display tables, and tents for live music performances. Informal public open spaces throughout the Hub Plan area include sidewalk dining and cafés, restaurant courtyards, and residential stoops.

EXISTING LAND USES NEAR THE INDIVIDUAL PROJECT SITES

The project site at 30 Van Ness Avenue is surrounded by residential, commercial, and office uses. North of the project site, at Van Ness Avenue and Fell Street, a commercial high-rise building (100 Van Ness) was recently renovated and converted into a mixed-use building with

ground-floor retail and residential uses. East of the project site, there are two- to four-story buildings with commercial and residential uses. South of the project site, on the south side of Market Street, taller commercial and office buildings house a variety of businesses and agencies, including Bank of America and SFMTA. West of the project, on the west side of Van Ness Avenue, is the New Conservatory Theater Center and a mixed-use building with ground-floor retail and residential uses.

The 98 Franklin Street project site is occupied by a vacant lot and surrounded by residential and commercial uses. San Francisco Fire Department Station 36 is immediately west of the site, across Franklin Street at 109 Oak Street. Adjacent to the site, to the east, is 1546–1564 Market Street, which, as of summer 2019, has a 12-story, 110-unit residential building under construction. Immediately to the south is 22–24 Franklin Street where an eight-story mixed-use building is under construction. North of the site, across Oak Street, lies the six-story San Francisco Conservatory of Music and a surface vehicular parking lot. West of the site, across Franklin Street, is a three-story residential and commercial building. Across the intersection of Franklin and Oak streets, which is northwest of the site, is the International High School of the FAIS.

EXISTING PLANNING CODE ZONING DISTRICTS

Currently, the Hub Plan area contains four zoning districts (see **Figure 2-4** in Chapter 2, Project Description, p. 2-18, of the Draft EIR): Neighborhood Commercial Transit (NCT-3), Downtown General Commercial (C-3-G), Hayes Neighborhood Commercial Transit (Hayes NCT), and Public (P). The C-3-G zoning district is concentrated in the northern half of the Hub Plan area, while the NCT-3 zoning district is within the southern half of the Hub Plan area. The Hayes NCT and P zoning districts are small designated areas within the NCT-3 zoning district. The 30 Van Ness Avenue project site is within the C-3-G zoning district. The 98 Franklin Street project site is also within the C-3-G zoning district, but much of the surrounding area is in NCT-3 and P zoning districts.

Uses permitted in the NCT-3 and Hayes NCT zoning districts are similar and include a variety of retail uses, such as bars, full-service restaurants, small self-service restaurants, movie theaters, other entertainment, financial services, medical services, personal services, and business or professional services. Many uses are also conditionally permitted, including hotels and automobile-related uses. The C-3-G zoning district permits office, retail, residential, entertainment, and institutional uses, with hotels as a conditional use. P zoning districts apply to land that is owned by a governmental agency with some form of public use, including open space or office uses occupied by a government agency.

The majority of C-3-G zoning district sites in the Hub Plan area are also within the Van Ness and Market Downtown Residential Special Use District (SUD). The Market and Octavia Area Plan created the SUD to emphasize residential use as the primary land use in the specified area.

The current zoning allows for a range of residential uses at varying scales of affordability as well as commercial uses on the ground floor. In addition, the 1500 Mission Street SUD is located in the C-3-G district. Within the NCT-3 zoning district are sites within the 1629 Market Street SUD and the Veterans Commons SUD.

Existing height and bulk districts within the Hub Plan area are shown in **Figure 2-6** in Chapter 2, Project Description, p. 2-22, of the Draft EIR. Under the current zoning, much of the Hub Plan area is zoned for a height of 85 feet, with the exception of the two major intersections at Market Street and Van Ness Avenue and Mission Street and South Van Ness Avenue, which currently allow for towers ranging from 250 to 400 feet. Existing buildings throughout the Hub Plan area range from two to six stories, with some notable exceptions at Market Street and Van Ness Avenue where the 100 Van Ness Avenue building is 29 stories (400 feet) and the 1455 Market Street building is 23 stories (315 feet). The 30 Van Ness Avenue project site is zoned for a height and bulk of 120/400-R2, while the 98 Franklin Street project site is zoned for a height and bulk of 85-X.

APPROACH TO ANALYSIS

THE HUB PLAN AND HUB HSD

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements proposed under the Hub Plan. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassification of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on land use could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. The land use analysis that follows evaluates the impacts of the subsequent development projects anticipated to occur in the Hub Plan area with respect to existing conditions. In the second significance criterion analyzed below, a conflict between a proposed project, including potential general plan amendments, and a general plan policy does not necessarily indicate that there would be a significant effect on the environment under CEQA. The staff report for the planning commission will analyze the Hub Plan's consistency with general plan policies. To the extent that development under the Hub Plan, including proposed streetscape and street network changes, would result in physical environmental impacts that would indicate a potential policy inconsistency, those impacts are

analyzed in the applicable topic section of this initial study or in the Draft EIR. It is noted that a proposed project's inconsistency with a plan that is applicable to the project does not, in itself, result in an adverse physical effect on the environment. However, such an inconsistency may, at least in some cases, be indicative of an adverse physical effect. The determination of a significant impact, which, by definition, must involve a physical change, is separate from the legal determination of plan consistency.

The analysis also addresses impacts related to proposed streetscape and street network changes at a project level because a sufficient level of detail has been developed to allow for analysis of the potential environmental effects of these changes. Physical environmental impacts related to or associated with these operational changes are analyzed in this Draft EIR. The proposed streetscape and street network changes would involve no changes in land use because the alteration of lane configurations, widening of sidewalks, and addition of bicycle lanes, transit-only lanes, and mid-block crossings for people walking, among other proposed changes, would have no bearing on either the permitted uses or the allowable building heights.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

30 VAN NESS AVENUE AND 98 FRANKLIN STREET

The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and residents to the area, which could result in impacts related to land use; therefore, they are analyzed on a project-specific level. The impact analysis for the two individual development projects evaluates whether they would physically divide an established community or conflict with the applicable land use policies of the City and the regional plans adopted for purposes of avoiding or mitigating an environmental effect.

Similar to the Hub Plan, a conflict between a proposed project and applicable land use plans, policies, and regulations of an agency with jurisdiction over the project does not necessarily indicate a significant effect on the environment under CEQA. Consequently, the analysis here

focuses on inconsistencies with policies adopted for the purpose of avoiding environmental impacts. The planning commission and/or board of supervisors will ultimately determine the proposed project's overall consistency with the goals and policies contained in the general plan, City requirements, and planning documents as part of the decision to approve or reject the proposed project.

If the proposed project would conflict with a plan or policy adopted to address issues associated with a particular resource area, such as air quality or water quality resources, any impacts associated with those conflicts would be analyzed in the applicable resource sections of this initial study or the Draft EIR and summarized here.

IMPACTS AND MITIGATION MEASURES

Impact LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not physically divide an established community. (Less than Significant)

THE HUB

The Hub Plan is a regulatory program; it does not represent physical development projects or sets of projects (with the exception of the streetscape and street network changes and the two individual development projects, discussed below). Therefore, any impacts related to the physical division of an established community would be secondary effects related to subsequent development projects incentivized by the Hub Plan.

Subsequent development projects under the Hub Plan would not be expected to divide an established community. Although the elevated Central Freeway and various freeway entrance and exit ramps are present within the area, the proposed rezoning within the Hub Plan area would not create any new physical barriers within the Hub Plan area. The Hub Plan does not propose roadways, such as freeways, that would divide the Hub Plan area or isolate individual neighborhoods within it.

The Hub Plan's proposed amendments to zoning districts and controls would allow for a diversity of land uses throughout the Hub Plan area and would not alter the physical layout of the Hub Plan area such that movement within or across the Hub Plan area would be obstructed. The Hub Plan's proposed zoning changes, which would allow more flexibility of uses generally and encourage more housing development specifically, may be expected to result in changes in land use patterns as subsequent development projects are implemented pursuant to the Hub Plan. However, these changes would not result in physical barriers to established communities, either within or surrounding the Hub Plan area. On the contrary, implementation of the Hub Plan would result in development within established lot boundaries, in most cases at a scale and density greater than that already permitted. In addition, the Hub Plan's requirement that larger developments include publicly accessible

open space could improve connectivity between land uses and neighborhoods within the Hub Plan area. For the reasons stated above, the Hub Plan would have a *less-than-significant* impact related to the division of an established community.

The proposed streetscape and street network changes would not involve any changes in land use and would not alter either the permitted uses or the allowable building heights. The proposed streetscape and street network changes, including improvements to the streetscape, mid-block alleys, and mid-block crosswalks, could decrease existing physical barriers by reducing the length of many of the Hub Plan area block faces and thereby facilitating movement of people walking through the neighborhood. Furthermore, the substitution of vehicular traffic lanes with transit-only lanes and bicycle lanes, widening of sidewalks, and installation of mid-block crosswalks would remove barriers to circulation within the neighborhood, especially for non-automobile modes, which would be beneficial for neighborhood connectivity. Consequently, no adverse impact related to the division of an established community would result from implementing the streetscape and street network changes. The impact would be *less than significant*.

30 VAN NESS AVENUE AND 98 FRANKLIN STREET

The proposed projects at 30 Van Ness Avenue and 98 Franklin Street would construct new buildings on existing lots and would not alter the established street grid or permanently close any streets or sidewalks. These individual projects would not include any large-scale infrastructure features such as new freeways or high-volume roadways that would physically divide an established community or remove transportation infrastructure that links neighborhoods. Although portions of the sidewalk adjacent to the project sites could be closed for periods of time during project construction, these closures would be temporary. Therefore, the individual development projects would not physically divide an established community, and a *less-than-significant* impact would result.

Mitigation: None required.

Impact LU-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not cause a significant physical environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

The applicable plans that regulate development in the Hub Plan area include the San Francisco General Plan and the San Francisco Planning Code. See Section C, Compatibility with Existing Zoning and Plans, for a detailed discussion of these and other land use plans that are applicable to the Hub Plan and the two individual development projects. Section C also identifies potential conflicts with the plans and policies. The discussion that follows summarizes the key findings of the analysis.

THE HUB PLAN

As explained in Chapter 2, Project Description, of the Draft EIR, implementation of the Hub Plan would require revisions to the planning code, including revisions to the existing zoning districts and height and bulk districts in the Hub Plan area. The proposed general plan amendment, planning code text amendments, and zoning map amendments to update the Market and Octavia Area Plan; the change in land use, zoning, and height and bulk classifications in the Hub Plan area; and actions to implement the Hub Plan would be subject to approvals by the planning commission and board of supervisors.

Because the Planning Code zoning districts, height and bulk districts, and land use designations are not explicitly “adopted for the purpose of avoiding or mitigating an environmental effect,” the Hub Plan’s proposed rezoning, redistricting, and land use designation changes, in and of themselves, would not result in a significant impact. Physical effects that would result from subsequent development projects pursuant to the Hub Plan and the aforementioned planning code amendments are analyzed as secondary effects in this initial study and Draft EIR. Furthermore, the proposed Hub Plan would be consistent with the vision of the project area and applicable objectives and policies set forth in the Market and Octavia Area Plan. Also, the proposed project would adhere to applicable environmental regulations, specifically, those of the general plan and planning code, and would not conflict with policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect such that a substantial adverse physical change in the environment would result. As such, this impact would be *less than significant*.

30 VAN NESS AVENUE AND 98 FRANKLIN STREET

Approval of the Hub Plan and related planning code amendments would also approve the land use and height and bulk changes proposed for the individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Both individual development projects would require approval of a Downtown Project Authorization by the planning commission, per Planning Code section 309 for projects within a Downtown Commercial (C-3-G) district that would be more than 50,000 square feet in area or more than 75 feet in height. Both individual development projects would also require conditional use (CU) authorization to exempt the floor area attributed to the onsite inclusionary below-market-rate units from the required floor area ratio, per Planning Code section 124. The 30 Van Ness Avenue Project would also require approval for office allocation, pursuant to Planning Code section 321, and might require approval of potential variances under Planning Code section 305 if required by final design of the building.

Upon approval of the Hub Plan, the individual development projects would be consistent with their respective zoning, height and bulk districts, and land use designations. Authorizations for special allowances and conditionally permitted uses are conditionally allowed under the

planning code and do not represent conflicts with zoning districts that would result in physical effects. Therefore, the individual development projects are considered to be consistent with relevant planning code regulations. Furthermore, the individual development projects would be consistent with the applicable objectives and policies set forth in the general plan and the Market and Octavia Area Plan and adhere to applicable environmental regulations. Therefore, the 30 Van Ness Avenue and 98 Franklin Street projects would not conflict with policies or regulations adopted for the purpose of avoiding or mitigating an environmental effect such that a substantial adverse physical change in the environment would result, and this impact would be *less than significant*.

Mitigation: None required.

Impact C-LU-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable contribution to cumulative land use impacts. (Less than Significant)

The reasonably foreseeable projects in the Hub Area and vicinity are identified in Chapter 3 of the Draft EIR. All of the subsequent development projects would be located on infill sites, replacing existing uses with new, predominantly residential uses.

Conflicts with existing land use plans and policies are policy issues and do not, themselves, give rise to a significant physical impact related to land use under CEQA. For these reasons, conflicts with plans and policies, considered with those of past, present, and foreseeable projects, could not combine to result in a significant cumulative impact related to land use.

The related projects, individually or in combination with the Hub Plan and the two individual development projects, would not divide an established community. Rather, consistent with current urban design practice in San Francisco, designs would aim to enhance neighborhood connectivity, improve public spaces, and increase the safety of streets and intersections for all users. As such, the Hub Plan and the two individual development projects, would not combine with related projects to result in a significant cumulative land use impact. For these reasons, the Hub Plan and the two individual development projects, in combination with other past, present, and reasonably foreseeable future projects, would not result in a cumulatively considerable land use impact. Accordingly, cumulative effects related to land use would be *less than significant*.

Mitigation: None required.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
2. AESTHETICS. Except as provided in Public Resources Code section 21099, would the project:					
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As discussed in Section E, Evaluation of Environmental Effects, the two individual development projects meet the criteria associated with Senate Bill 743, which states that the aesthetic and vehicular parking impacts of residential, mixed-use residential, and employment-center infill projects located in transit priority areas are not considered significant impacts on the environment under the CEQA. Thus, this aesthetics analysis does not consider the significance of project-specific impacts under CEQA for the two individual development projects at 30 Van Ness Avenue or 98 Franklin Street.

The following analysis is focused on program-level impacts resulting from implementation of the Hub Plan and Hub HSD.

SETTING

REGIONAL VISUAL SETTING

The greater San Francisco Bay (Bay) region is a complex system of mountain ranges, valleys, and waterways that, together, create a unique area that not only defines the character of the region but also contributes to the overall character of California. Some notable areas include the distinctive urban center of San Francisco, the cliffs of the Marin Headlands and Pacific Ocean coastline, and the Bay. The region is characterized by panoramic views from the Santa Cruz Mountains and the East Bay Hills, the rolling hillsides, and numerous waterways.

VISUAL CHARACTER OF THE HUB PLAN VICINITY

The visual character of a city or part of a city, such as the Hub Plan area, comprises many physical elements that, in combination, form the city’s image. The location of the Hub Plan and Hub HSD in relation to the city at large is shown in Chapter 2, Project Description, **Figures 2-1**

and 2-2, pp. 2-2 and 2-4, of the Draft EIR. The existing visual setting of the Hub Plan area is varied and reflects the visual characteristics of its natural and built components, including the topography, street grid, buildings (individually and collectively), public parks and open spaces, and major transportation infrastructure. The approximately 84-acre Hub Plan area occupies an area of San Francisco within the Downtown/Civic Center, SoMa, Western Addition, and Mission neighborhoods. Topographic features in the project vicinity are minimal, and the grading is generally flat.

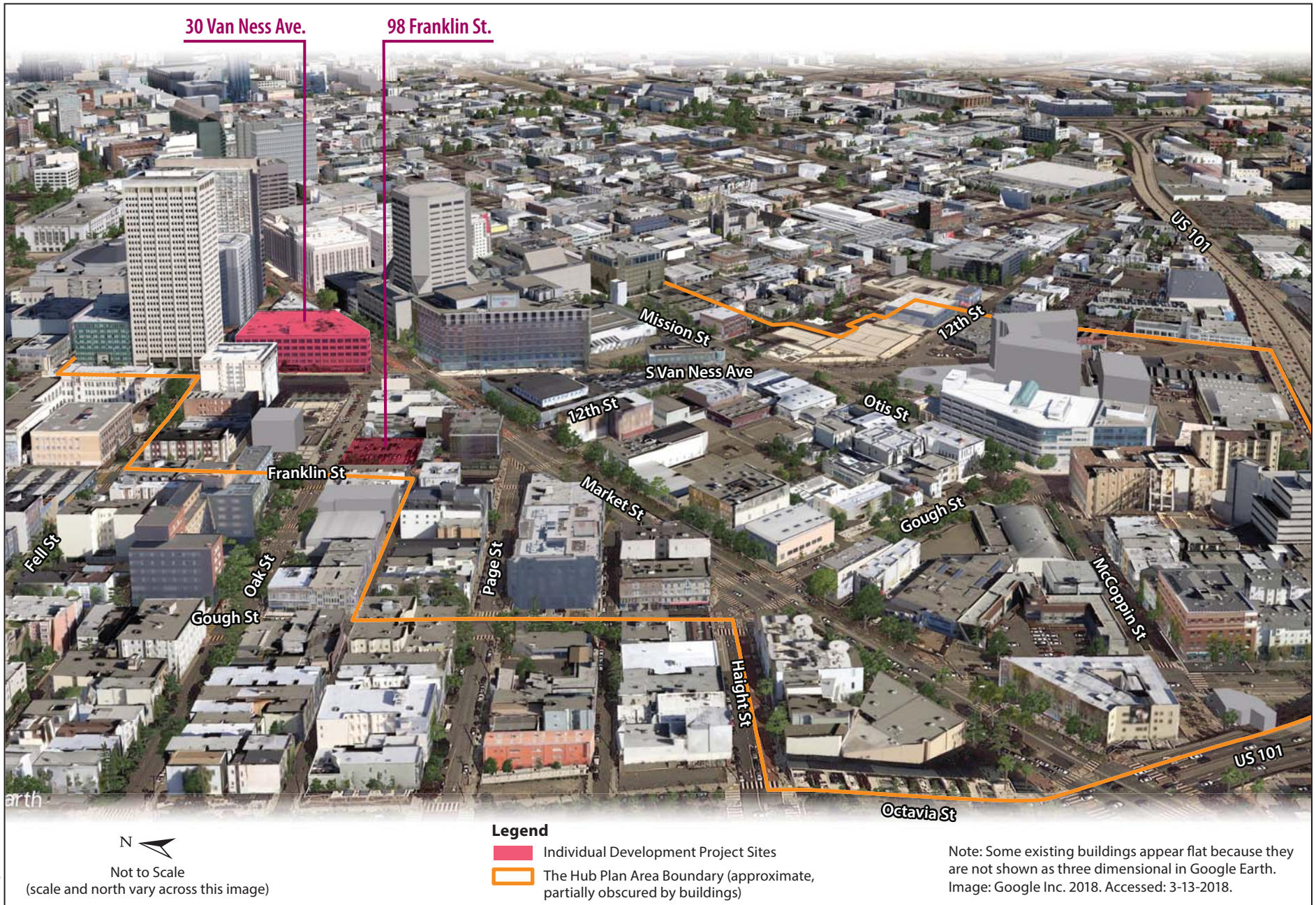
The notable visual features discussed in this section and seen in **Figure E.2-1**, Existing Visual Character in the Hub Plan Area, include the Central Freeway (U.S. 101) in the southwestern portion of the Hub Plan area (on the far right edge of the figure); Market Street, diagonally bisecting the area (shown in the middle of the figure); South Van Ness Avenue, seen horizontally in the middle of the figure between Market Street and U.S. 101; and the collection of taller, larger buildings (compared with the rest of the buildings in the image's foreground and background) on the left (upper part of the image near the intersection of Market Street and South Van Ness Avenue).

The Hub Plan area has experienced and continues to experience a visual transformation in the form of redevelopment and infill development. As such, the visual setting of the project vicinity is varied in character. Newly developed sites are found side by side with older rehabilitated buildings. Other sites display ongoing construction activities. This redevelopment and infill development in the Hub Plan area is creating a visual fabric that includes an array of architectural styles, mixing old with new. Therefore, the massing, scale, materials, and architectural character (with respect to age and style) of the buildings do not conform to any strongly discernible overall pattern within the Hub Plan area; rather, many developments are visually unique with respect to one another.

The Hub Plan area has a distinctive block pattern, created by the meeting of the Mission, SoMa, and North of Market street grids near the intersections of Market Street and Valencia, Haight, and Gough streets, lending the project area its name, "The Hub" (see p. 2-5 in the EIR). Some site (block) sizes within the Hub Plan area and vicinity are non-uniform, either rectangular or triangular in shape. Angular and perpendicular road patterns define the edges.

STREETS AND ROADWAYS

Streets and roadways are a major component of the Hub Plan area's built environment. These primary public rights-of-way define the Hub Plan area's scale. Roadways in the Hub Plan area tend to be wide; the major thoroughfares are approximately 80 feet wide curb to curb, such as Market Street and South Van Ness Avenue. Many of the one-way streets convey vehicular traffic in three or four lanes, such as Gough Street. Medium and smaller roadways, such as Duboce and Haight streets, provide additional access. People bicycling are served by bicycle



CF Graphics ... 0070017 (11-15-2018)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure E.2-1
Existing Visual Character in the Hub Plan Area

lanes on select streets, such as Market Street. Alleys within the Hub Plan area, such as Rose Street, Minna Street, and Brady Street, are small-scale streets that typically carry only very low numbers of people driving. People driving use the alleys when accessing adjacent properties.

The character of the alleys varies across the Hub Plan area, from residential alleys to service alleys, such as the one-way Minna and Otis streets. A major visual component in the Hub Plan area is the elevated Central Freeway (U.S. 101) and associated ramps over South Van Ness Avenue between Mission and 13th streets.

For people walking, roadbeds are seen as open areas (a visual relief) between buildings and blocks. From this perspective, roadways provide the most visual public open space in the Hub Plan area. These areas are dynamic because they most often accommodate fast-moving vehicles of many shapes and sizes. The street's *edges* are the walkways for people walking or concrete sidewalks, which vary in width (up to 15 feet) and, at times, are non-existent in the Hub Plan area. These edges for people walking operate as public open spaces that transition into private property, providing thresholds to homes and businesses.

LIGHT AND GLARE

Light pollution includes all forms of unwanted light in the sky during hours of darkness, such as glare, light trespass, sky glow, and overlighting. Sources of light and glare are typical and abundant in the urban environment of the Hub Plan area, including streetlights, vehicular parking lot lights, security lights, vehicular headlights, internal building lights, and reflective building surfaces and windows.

VIEWS FROM WITHIN THE HUB PLAN AREA

Foreground views in the Hub Plan area include buildings of varying styles and stature, including both modern and older buildings; an elevated freeway, roadways, sidewalks, and associated infrastructure; paved surface vehicular parking lots; public parks and open spaces; and glimpses of the sky. Middleground and background views¹⁹ are limited in most directions by surrounding development.

OPEN SPACES

Public spaces contribute to a neighborhood's identity, serve as visual landmarks, and provide visual relief in densely built urban environments. The Hub Plan area encompasses an intensely developed urban area where public open spaces are limited. There are three existing public recreational open spaces in the Hub Plan area: SoMa West Skate Park, under the Central

¹⁹ There are three distinct "distance zones" for assessing potential visual impacts. These are foreground views (approximately 0 to 0.25 or 0.5 mile), middleground views (approximately 0.25 or 0.5 mile to 3 to 5 miles), and background views (approximately 3 to 5 miles to areas beyond).

Freeway on Valencia Street between McCoppin Street and Duboce Avenue; the adjacent SoMa West Dog Park, located under the Central Freeway on Duboce Avenue between Valencia and Otis streets; and McCoppin Hub, which extends east-west, from the cul-de-sac where McCoppin Street terminates at the Central Freeway to Valencia Street on the east. These public open spaces, with major visual components that include concrete pylons, concrete benches and skate structures, fences, railings, light posts, and artificial turf, are very much a part of the built environment, although confined by the walls of adjacent buildings and the freeway's undercarriage, making them narrow areas with limited skyview or long-range views. Five other existing small parks and gardens are found in the Hub Plan vicinity but outside the Hub Plan area, as shown in Section E.12, Recreation, **Table E.12-1**, Open Spaces within 0.25 mile of the Hub Plan Area, p. E.12-3. There are also two proposed parks, Brady Park, which would be located within the Hub Plan area, and 11th/Natoma Park, which would be located about 200 feet outside the Hub Plan area. From most locations within the Hub Plan area, these adjacent parks and gardens could be visually obstructed by tall buildings and other urban elements.

BUILDINGS AND BUILT FORM

The visual context of the Hub Plan area is framed by the distribution and types of land uses and buildings. No one land use dominates the Hub Plan area; rather, a wide range of land uses can be found in the same block or even within the same building. Current land uses in the Hub Plan area include housing units (in a mix of older buildings and newer residential buildings), offices, industrial spaces, commercial uses such as gas stations, retail spaces, and some cultural and social institutions. Light industrial and mixed-use buildings tend to be on major streets, while residential units are on local streets. This creates a mixed visual pattern. Wide streets are crossed by small streets and alleys that offer visual relief from the street wall. These smaller streets are flanked by tall building walls that provide less visual relief but an appropriate human scale for residential access.

STREETS

Most streets in the Hub Plan area are described in the general plan²⁰ as having views of *average* quality. In the Hub Plan area, one block of Polk Street (east of Van Ness Avenue and north of Market Street, on the northern border of the Hub Plan area) and one block of Hayes Street (where it meets Market Street, between Larkin and Polk streets) are characterized as having street views with *good* quality. No streets in the Hub Plan area have been characterized as having views with *excellent* quality. No other street segments are specifically characterized in terms of street view quality.

²⁰ City and County of San Francisco, *San Francisco General Plan, Urban Design Element, Quality of Street Views*, 2010, http://generalplan.sfplanning.org/I5_Urban_Design.htm, accessed: July 6, 2019.

FREEWAYS

The Central Freeway, which runs east–west on the southern boundary of the Hub Plan area, is elevated by approximately 30 to 50 feet. It runs above South Van Ness Avenue between Mission and 13th streets and feeds into the freeway entrance south of 13th Street. The freeway is a major visual element in the Hub Plan area in that it dominates overhead views and obstructs street-level and mid-range views. The low-rise and infrequently used buildings adjacent to the freeway contribute to the visual dominance of the freeway’s concrete structure and associated ramps.

VIEWS OF THE HUB PLAN AREA FROM SURROUNDING AREAS AND VIEWER GROUPS

The Hub Plan area is visible from several surrounding areas, as discussed below. **Figure E.2-2, Existing Massing in the Hub Plan Area**, is a visual rendering of the Hub Plan area in terms of mass and height (from a bird’s-eye view, looking east, toward the Hub Plan area).

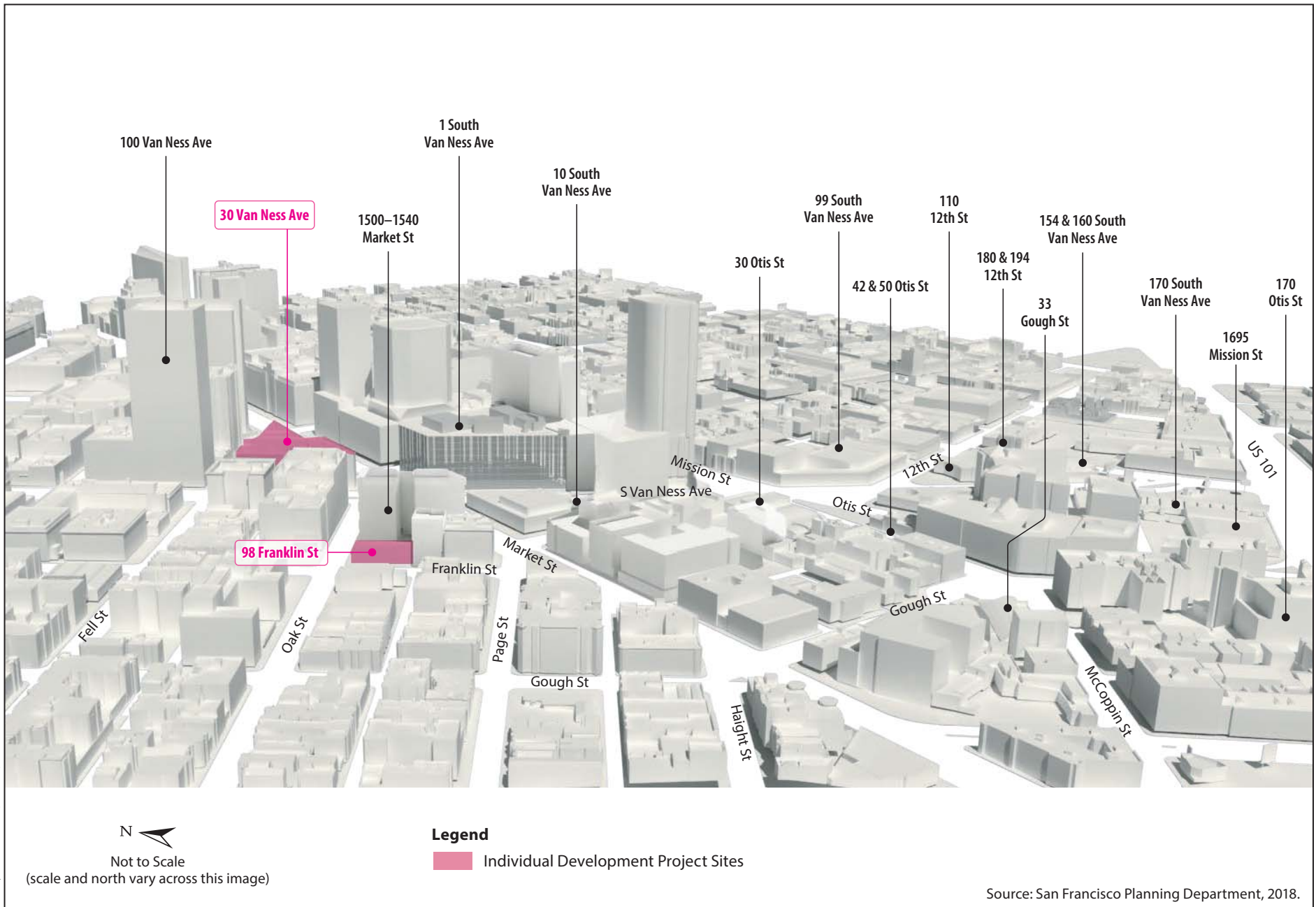
Adjacent Streets. Existing views of the Hub Plan area from local streets and roadways are heavily obstructed by buildings, infrastructure, and other built forms. Views are generally limited to the roadbed, rights-of-ways for people walking, and foreground views of building walls. The proposed Hub Plan area does not currently stand out as a distinct zone or neighborhood from a visual perspective from streets adjacent to the Hub Plan area.

Viewers also include business owners and workers (i.e., occupants) as well as patrons of the businesses. Business occupants have moderate visual sensitivity because, although they are likely to have a sense of ownership over local views, they are more focused on operating their businesses, and more likely to see additional development as a favorable source of new patrons. Business patrons are likely to have moderate to low visual sensitivity because they are more focused on visiting the businesses than on views of the Hub Plan area. They have intermittent and limited views of the Hub Plan area.

Local roadway and freeway users include commuters traveling to and from work, shoppers, recreational travelers, and people driving commercial vehicles. Roadway users typically travel at speeds up to the posted speed limit, which is typically 25 miles per hour in the Hub Plan area. Depending on speed and vehicular traffic congestion, people driving and passengers take in brief views of the scenery around them.

Central Freeway. Elevated views toward the Hub Plan area and surrounding Bay Area are available from the elevated Central Freeway (U.S. 101) on the southern edge of the Hub Plan area, between Mission and 13th streets. The Central Freeway is not listed as a State Scenic Highway (or an Eligible State Scenic Highway) under the state’s Scenic Highway Program.²¹

²¹ California Department of Transportation, *Scenic Highway Program, List of Eligible and Officially Designated State Scenic Highways*, 2016, last updated: March 16, 2016, http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/scenic_hwy.htm, accessed: March 8, 2018.



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Figure E.2-2
Existing Massing in the Hub Plan Area

Views of the Bay and East Bay Hills from the elevated Central Freeway in the Hub Plan area are fragmented by consistent vehicular traffic, tall road signs, and concrete roadway barriers and other structures.

In addition, people walking are not permitted atop the elevated freeway. People driving are typically not paying attention to views while driving in this area. Although people driving might be aware of skyviews and other distinct features, they are presumed to be distracted by immediate close-range views and focused on driving and navigating vehicular traffic.

Hillside Public Parks. San Francisco's numerous hills offer expansive, long-range scenic views of the Bay and the Hub Plan area, including public viewpoints from public parks and open spaces. The Hub Plan area would be visible in long-range middleground views from the following public hillside spaces: Dolores Park (looking north), Corona Heights (looking east), Potrero Hill (looking northeast), and Twin Peaks (looking northeast). Features included in these mostly east-to-northeast-facing medium- to long-range views are the massing of the buildings, the overall cityscape and skyline, the Bay, the Bay Bridge, Yerba Buena Island, Treasure Island, and the hills of the East Bay. From these elevated vantage points, the high-rise buildings of the Financial District are visible next to the southern towers of the Bay Bridge and Yerba Buena Island. The high-rise buildings transition to low- and mid-rise buildings in the areas that surround the Financial District, including downtown, SoMa, the Mission District, and The Castro.

Recreational viewers have moderate to high visual sensitivity because they are more likely to value the natural and urban environments, appreciate the visual experience, have a strong sense of ownership, and be sensitive to changes in views. Recreational viewers use parks, waterways, trails, and roadways. They are likely to enjoy the local urban scenery and seek out the scenic views associated with the Bay. Local recreationists tend to have a higher sense of ownership over views and resources than visiting recreationists; however, it is likely that visiting recreationists would be familiar with the area and therefore also place a high value on existing views.

SCENIC AND VISUAL RESOURCES

Scenic resources are elements in the environment, such as topographic features, trees, rock outcroppings, or other features of the built or natural environment, that contribute to a scenic public setting. Scenic resources may be protected by federal, state, or local regulations or highly valued by the local community. *Scenic vista views* are views from public areas that generally encompass a wide area with long-range views to surrounding elements in the landscape. Scenic vista views often have local and regional value. Such views are often visible because of a flat landscape with little vegetation or an elevated viewing point that allows for views out and over the surrounding landscape. Vistas also have a directional range, which is to say that some viewpoints have scenic vistas with a 360-degree view in all directions, while others may be

limited in one direction in a manner that reduces the line-of-sight angle and the amount of vista that is visible. In such cases, narrower vista views are often confined by topography, development, and vegetation. Scenic vista viewsheds allow the public to access panoramic views of natural features, including the ocean, striking or unusual natural terrain, or unique urban or historic features that are identified in adopted policies or plans. The term *view corridor* refers to views of important features along a path, roadway, or other horizontal corridor where the view is confined by obstructions such as development or vegetation. As such, a view from a view corridor has limited lateral visibility. This is referred to as a *channelized view*.

VISUAL RESOURCES IN THE HUB PLAN AREA

No state or local designated scenic routes are associated with the Hub Plan area. The Hub Plan area has generally flat topography. It does not have any natural landscape forms or features with substantial scenic resource value. The Hub Plan area also does not contain built features with high scenic resource value or any visually noteworthy vegetation or trees.

The Hub Plan area does contain some visually important buildings but is not generally an area that would be described as having *high scenic quality*. Although many buildings are comparable to one another in terms of height, bulk, building materials, architecture, and façade, there are some notable exceptions. These distinct buildings add visual quality to the Hub Plan area.

As identified in the Market and Octavia Neighborhood Plan,²² examples of important individual buildings that lend visual texture to the Hub Plan area and remind us of its history include the Venetian Renaissance–style Masonic Temple at 25 Van Ness Avenue (San Francisco Conservatory of Music), built in 1911 by a prominent architect; the High School of Commerce at 135 Van Ness Avenue (San Francisco Landmark #140), built in 1927, a building that exhibits an “exuberant Spanish Colonial Revival design”;²³ and the Juvenile Court and Detention Center at 150–170 Otis Street, built in 1914 by architect Louis C. Mullgardt in the Spanish Revival style.

The Urban Design Element of the San Francisco General Plan classifies some streets in San Francisco according to their level of importance as visual resources and the quality of the street views available from certain vantage points along those streets (refer to the Regulatory Framework for the general plan urban design element map, Street Areas Important to Urban

²² Page & Turnbull, Inc., *Historic Context Statement. Market and Octavia Neighborhood Plan Area*, 2017, http://sfplanning.org/sites/default/files/FileCenter/Documents/682-MO_Context_Final_202007.pdf, p. 62, accessed: March 20, 2018.

²³ San Francisco Property Information Map, *135 Van Ness Avenue*, <http://propertymap.sfplanning.org?search=135+van+ness+avenue&tab=2>, accessed: November 9, 2018.

Design and Views).²⁴ Within the Hub Plan area, Market Street, which bisects the area on the north, is described as a street with a “Street View of Important Buildings” and a “Street that Defines City Form.” This is because of the street’s unusual width and direction as well as its view of an important building (the Ferry Building on The Embarcadero). The “Central Skyway” (Central Freeway) on the southern boundary of the Hub Plan area is classified as having an “Important Street View for Orientation.” No other streets within the Hub Plan area or its vicinity are described as streets of importance with respect to San Francisco urban design and views.

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Although the Hub Plan would establish a policy and regulatory framework that, if carried out, could alter the urban form of the Hub Plan area, the Hub Plan would not result in immediate physical changes to the existing visual character. Any changes to urban form and visual quality would be the result of the subsequent development projects permitted under the Hub Plan. The proposed streetscape and street network and configuration changes could also have physical effects.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural

²⁴ City and County of San Francisco, *San Francisco General Plan*, Urban Design Element, 2010, last updated: December 7, 2010, http://www.sf-planning.org/ftp/General_Plan/images/I15.urban_design/urb_street_areas_important_to_perception_of_city.pdf, accessed: March 8, 2018.

change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

The visual quality of an area relates to the physical appearance and characteristics of the built environment, the proximity and balance of human-made structures with open space or landscaping, and views of public open space or more distinct landscape features such as hills, water bodies, or built landmarks. These elements help define a sense of place and a physical orientation in a larger visual setting. The Hub Plan area is not a pristine natural environment or rural area; instead, the Hub Plan area is within a human-built urban environment that is part of an established community. Visual conditions within the vicinity of the Hub Plan area are defined by a mix of local roadways, large blocks that are either vacant or under construction, and industrial, office, recreational, residential, and commercial development. The interplay of these elements of the visual setting varies, depending on the viewer location.

Design and aesthetics are subjective and open to interpretation by decision-makers and the public. However, as with all CEQA impacts, the effects of a project or program must be considered in the physical context of the program area and compared to existing conditions. A proposed project would, therefore, be considered to have a significant adverse effect on visual quality under CEQA only if it were to cause a substantial and demonstrable negative change in the physical environment that affects the public in one or more ways. Changes to private views resulting from a proposed program would not be considered to be substantially degrading to the existing visual character of the environment because they would not affect the public at large.

This analysis evaluates the anticipated development in the Hub Plan area with respect to existing conditions and current allowances. It considers the degree of visual contrast and compatibility in scale and character between existing and potential conditions that could occur as a result of programmatic changes. Potential impacts on aesthetic and visual resources due to the Hub Plan are evaluated below, based on a review of photographs and program data as well as site reconnaissance. Computer-generated visual massing studies are used below to depict the potential range of development that could occur under the proposed Hub Plan.

DENSITY BONUS PROGRAMS

As discussed in Chapter 2, Project Description, in the EIR, the state density bonus program, as well as the City's Affordable Housing Bonus Program (codified in Planning Code section 206), would be applicable in the Hub Plan area. This would result in the potential for added height for affordable housing projects. However, the locations where project sponsors might seek to use the state or the local density bonus programs are not known. Although these bonus programs permit an increase in residential density beyond that otherwise allowed, and enable project sponsors to request waivers or modifications with respect to planning code

requirements, including height limits, they do not exempt subsequent projects from being subject to CEQA review. Therefore, pursuant to state density bonus law, any project for which additional height is requested would be evaluated further under CEQA.

IMPACTS AND MITIGATION MEASURES

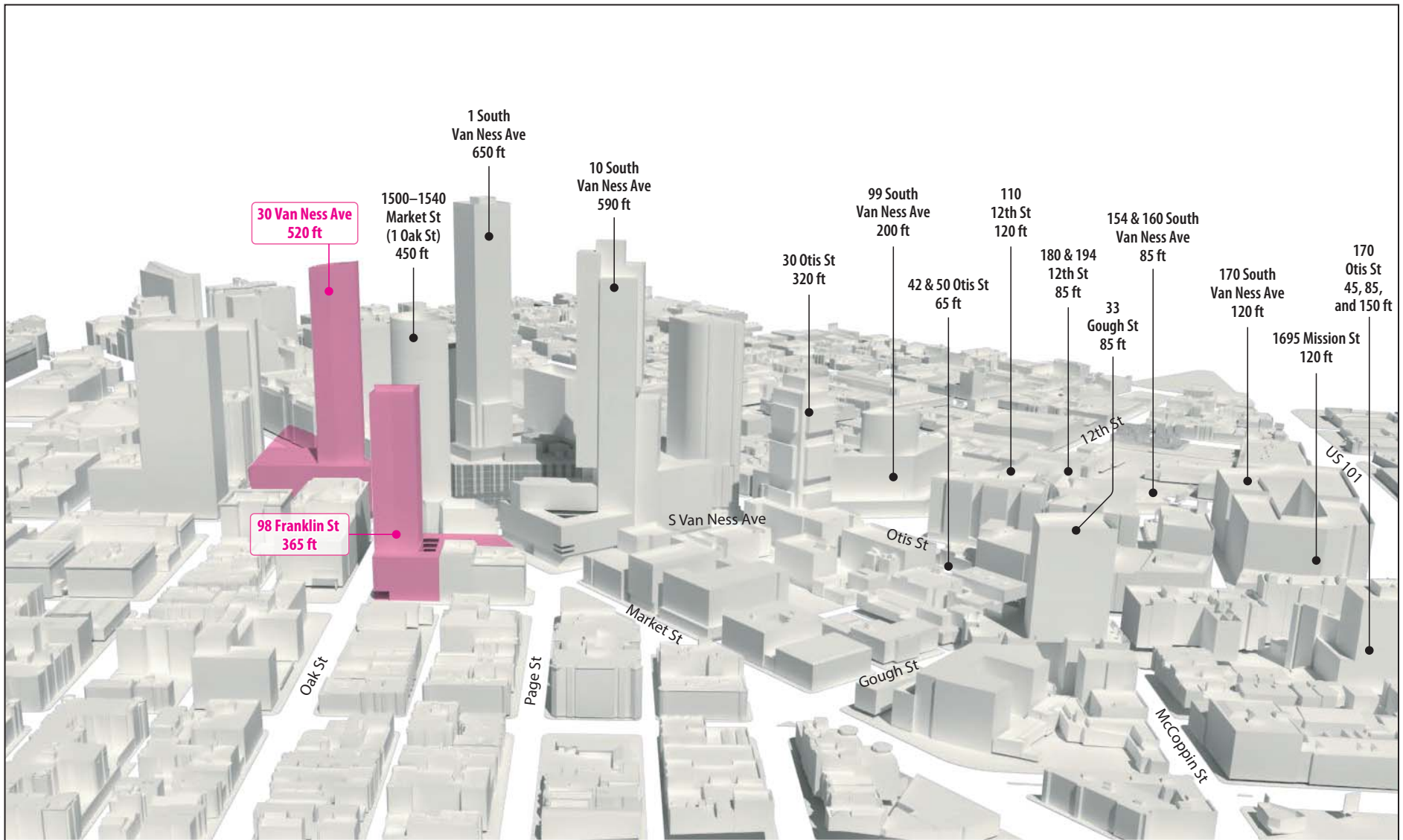
Impact AE-1: The Hub Plan would not have a substantial adverse effect on a scenic vista. (Less than Significant)

As described above, a scenic vista is a vista from a public location with high visual quality, including harmonious, visually interesting, and broad views. The Hub Plan area has no substantial topographic relief and only limited public open spaces that provide vantage points. The one location within the Hub Plan area from which scenic vistas are afforded is the Central Freeway. Accordingly, this discussion focuses on the effect of subsequent development projects under the Hub Plan and its effect on mid-range views within the Hub Plan area as well as mid-range and long-range views of the Hub Plan area from outside locations.

Figure E.2-3, Potential Massing under the Hub Plan, is a visual diagram of potential maximum building heights and massing that would be allowed in the Hub Plan area. This diagram represents a mid-range view from outside the planning area (looking east, toward the Hub Plan area). Development pursuant to these height limits would result in substantially taller buildings on the sites proposed for upzoning compared with the current low- to mid-rise buildings that are the more common scale throughout the majority of the Hub Plan area. However, they would be compatible with the scale of surrounding buildings already in the vicinity, especially development seen to the north and east in the Financial District and SoMa neighborhoods.

The Central Freeway (U.S. 101) would not be directly affected or substantially altered under the Hub Plan. Thus, the availability of views from the aerial portions of the freeway would not be changed. Newer, taller buildings in the Hub Plan area could be visible from the freeway but would generally blend in with the existing urban quality and scale of development in the viewshed, including the high-rise buildings at 100 Van Ness Avenue, 1390 Market Street (Fox Plaza), and 8 10th Street (NEMA), for example.

In areas surrounding the Hub Plan area, public locations (i.e., hillside public parks and open spaces) where scenic vistas could be affected by subsequent development projects under the Hub Plan are as follows: Dolores Park, Corona Heights, Potrero Hill, and Twin Peaks. These locations offer expansive mid-range and long-range views of the sky and the natural setting of the Bay, the San Francisco waterfront, Yerba Buena Island, and the East Bay Hills. In addition, these locations include views of the Bay Bridge, a notable architectural feature. The overall character of the cityscape seen from these public locations, as well as the focal points (described above) viewed from these locations, would not substantially change as a result of the Hub Plan.



Legend

Individual Development Project Sites

Source: San Francisco Planning Department, 2019.

ICF Graphics ... 00700017 (4-24-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

**Figure E.2-3
Potential Massing under The Hub Plan**

The Hub Plan would incentivize the construction of high-rise building in the Hub Plan area, but these potential future changes to the height and bulk of buildings in the Hub Plan area would blend in with the existing cityscape viewed from mid-range and long-range locations such as these. Should future development occur within the Hub Plan area that maximizes the proposed height limits, the area would not stand out or be visually notable, given the expansive nature of the vistas. The Hub Plan, including the streetscape and street network changes, would not have a substantial adverse effect on a scenic vista. This impact would be *less than significant*.

Mitigation: None required.

Impact AE-2: The Hub Plan would not conflict with applicable zoning and other regulations governing scenic quality or substantially damage scenic resources. (Less than Significant)

No natural or scenic resources would be affected by subsequent development projects under the Hub Plan because none currently exist in the area. Physical changes are likely to occur as secondary effects from revisions to the planning code regarding intensified allowable uses and the increased height and bulk limits throughout the Hub Plan area. The visual effects of foreseeable new uses under the Hub Plan would be most prevalent in areas that allow taller buildings compared with current conditions.

Under the current zoning, much of the Hub Plan area is zoned for a height of 85 feet, with the exception of the two major intersections at Market Street and Van Ness Avenue, and Mission Street and South Van Ness Avenue, which currently allow for towers ranging from 250 to 400 feet. The proposed zoning under the Hub Plan would allow for additional height at Market Street and Van Ness Avenue and Mission Street and South Van Ness Avenue, with towers ranging from 250 to 650 feet. This proposed zoning would also allow increases in height for select sites. Specific changes to height limits under the Hub Plan are shown in Chapter 2, Project Description, **Table 2-1**, Proposed Changes to Height Limits, p. 2-24, of the Draft EIR.

Development pursuant to these height limits would result in substantially taller buildings compared with the current low- to mid-rise buildings that are the more common scale throughout the majority of the Hub Plan area. However, they would be compatible with the scale of surrounding buildings already in the vicinity, especially development seen to the north and east in the Financial District and SoMa neighborhoods. The relatively greater height and density of buildings now present in the vicinity would be expanded south to include the Hub Plan area. In addition, physical changes would be incremental, occurring gradually over time and according to the resources and timing of individual project sponsors. Given historical development patterns, it can also be assumed that not all sites would be built to maximum height and bulk allowances. The proposed Hub Plan height and bulk limits would provide a greater incentive for redevelopment of some sites over others. As a result, some

new buildings could be noticeably taller than existing adjacent buildings. However, although the character of the Hub Plan area would change, it would not cause a negative visual effect because they would be compatible with the scale of surrounding buildings already in the vicinity, avoiding conflicts with applicable zoning or other regulations governing scenic quality.

Although the varied scale and mid-rise character of much of the Hub Plan area would remain, implementation of the Hub Plan would still alter the cityscape and change some areas at ground level. Taller buildings in clustered areas would reinforce existing street grid-oriented development, causing a concentration of visual changes in specific locations as opposed to spread out over a wide area. Higher-density development would be most noticeable to people walking and driving at ground level whose perspectives for wayfinding and physical orientation may be altered. These changes, however, would not necessarily be considered adverse from a visual perspective. As with many redevelopment projects, newly constructed buildings are a welcome visual change that may enhance or improve some areas (especially those that were decrepit or underutilized), creating more vibrancy and activity in areas that may have been lacking. Therefore, even though the overall appearance of the area would change as a result of subsequent development projects under the Hub Plan, the dominant visual character of the area, one of a densely built urban environment, would remain generally consistent with existing conditions, avoiding conflicts with applicable zoning or other regulations governing scenic quality.

Less visual change would occur in the Hub Plan area where building height and bulk allowances would remain as is, such as the blocks on Market Street between Van Ness Avenue and Gough Street and the areas in the southern portion of the Hub Plan area near the freeway. Historic preservation policies would continue to protect older buildings that add visual character to the area. Furthermore, future uses and building designs would conform to the general plan urban design policies and guidelines and those of the Market and Octavia Area Plan. Generally, the mix of design styles and uses across the Hub Plan area would be preserved.

Although visual quality is subjective, given the above analysis, implementation of the Hub Plan would not conflict with applicable zoning or other regulations governing scenic quality, nor would the Hub Plan result in substantial adverse impacts on visual quality or scenic resources.

The Hub Plan would improve the public realm through streetscape improvements that allow for a functional, attractive, and well-integrated system of public streets in the area. Major intersections such as Market Street and Van Ness Avenue, as well as Mission Street and South

Van Ness Avenue, would be reconfigured to make them safer. This would also facilitate multi-modal traffic and create public spaces. Implementation of the Hub Plan would conform to the standards of the Better Streets Plan.²⁵

Proposed streetscape and street network improvements generally include consistent materials, detailed high-quality paving in the roadway, raised crosswalks at intersections, street trees along the vehicular parking lane or wherever the width allows along the sidewalk's edge, and other landscaping wherever feasible. From an aesthetics standpoint, these modifications to the streetscape and street network and streetscape would result in minor and generally beneficial alterations to the visual character of the neighborhoods in the Hub Plan area. Specifically, they would reduce the amount of public space allocated to private vehicles, add street trees to visually soften and shade sidewalks (and vehicular traffic calming), and create more visually interesting public spaces and streets that would be scaled for people walking. These changes would not be considered adverse and would not conflict with applicable zoning or other regulations governing scenic quality.

Implementation of the Hub Plan would not conflict with applicable zoning or other regulations governing scenic quality or adversely affect any scenic resources in the Hub Plan area. The impact would be *less than significant*.

Mitigation: None required.

Impact AE-3: The Hub Plan would not create a new source of substantial light or glare in the Hub Plan area that would adversely affect daytime or nighttime views or substantially affect people or properties. (Less than Significant)

Implementation of the proposed Hub Plan would incentivize new development, which would generate additional lighting during hours of darkness in the future, but this change would not be substantial or adverse in the context of existing lighting in the urban Hub Plan area. The new lighting would not exceed existing lighting at nearby buildings and could be lower in comparison on a per-building basis because requirements in the San Francisco Building Code (building code) and Green Building Code require energy conservation. Also, compliance with design guidelines and the planning code would require the use of non-reflective glass; downward-directed, shielded outdoor lighting; and limitations on the illumination of outdoor signs. In addition, Planning Commission Resolution 9212 generally prohibits the use of

²⁵ The Better Streets Plan, adopted in 2010, identifies policies and standards for the design, location, and dimensions of items for people walking and streetscape items in the public right-of-way, including crosswalks, bulb-outs, street furniture, planters, and trees. The plan seeks to balance the needs of all city street users and includes goals, objectives, policies, and design guidelines, as well as future strategies, to improve the realm of people walking in San Francisco. Major concepts covered in the Better Streets Plan range from safety and accessibility features for people walking to improved ecological performance on streets and streetscape greening.

mirrored or reflective glass in new buildings. Therefore, impacts related to glare from new buildings would not be substantial. Streetscape and street network changes would result in light and glare conditions similar to or slightly better than those under existing conditions. New lighting would use improved designs and technology, such as LED technology, which allows individual lights to be directed downward at the public right-of-way at ground level, resulting in less spillage into surrounding buildings. Therefore, implementation of the Hub Plan would not result in obtrusive light or glare that would adversely affect views or substantially affect other properties. The impacts would be *less than significant*. (A separate analysis of lighting effects on birds is included in Section E.13, Biological Resources.)

Mitigation: None required.

Impact C-AE-1: The Hub Plan, along with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on aesthetics. (Less than Significant)

This analysis of the contribution of the Hub Plan to cumulative aesthetics impacts is based on consideration of the reasonably foreseeable future projects within the Hub Plan area, as identified and described in Section B, Project Setting. Smaller projects within and near the Hub Plan area, even mid-rise developments, would not generally be discernable in long-range views of the Hub Plan area, nor in shorter-range views from within the Hub Plan area (unless a project were in immediate view). Thus, smaller projects would not combine with potential Hub Plan area development and would not create a significant cumulative impact.

When combined with other foreseeable proposed, approved, or under-construction projects in the area, the subsequent development projects under the Hub Plan would alter the visual character of the Downtown/Civic Center, SoMa, Western Addition, and Mission neighborhoods. However, in the context of the highly developed Hub Plan area and surroundings, this change would not conflict with applicable zoning or other regulations governing scenic quality. Buildings that are currently approved (such as 200–214 Van Ness Avenue, at up to 134 feet tall) would be comparable with zoning allowances in the Hub Plan area, which are mostly in the 120-foot range but would go up to 650 feet at specified locations (refer to Chapter 2, Project Description, **Table 2-1**, Proposed Changes to Height Limits, p. 2-24, of the Draft EIR). The Central SoMa Area Plan (east and southeast of the Hub Plan area and within the visual backdrop of the Hub Plan area from higher public vantage points, as discussed above) would allow building heights of up to 400 feet in specified areas and change building heights in other areas of Central SoMa from the existing 45 feet to as much as 160 feet. It would also allow towers ranging from 200 to 400 feet on specified sites across its planning area. Building allowances of 85 feet would remain in many areas; some areas that are currently at 45 feet would be raised to 85 feet. This varied height and bulk pattern seen in the Central SoMa Area Plan is similar to the limits and/or allowances specified for the Hub Plan area.

From a visual standpoint, where buildings tend to blend together from mid- and long-range views (2 to 10 miles), the changes would not be considered adverse and would not conflict with applicable zoning or other regulations governing scenic quality. In addition, new buildings, such as the proposed developments in the Hub Plan area at 30 Van Ness Avenue (at up to 520 feet) and 98 Franklin Street (at up to 365 feet), could create new focal points from long-range locations. However, San Francisco height and bulk limits,²⁶ urban design standards,²⁷ and the Planning Code section 309 (Downtown Project Authorization) process would promote well-designed towers that would enhance the skyline. Future residential projects in the Hub Plan area would likewise be required to adhere to the Residential Design Guidelines,²⁸ which articulate expectations regarding the character of the built environment and are intended to promote a design that will protect neighborhood character and enhance the attractiveness of city neighborhoods. Overall, the cumulative impact on views would not be adverse or conflict with applicable zoning or other regulations governing scenic quality.

The Hub Plan, when combined with past, present, and reasonably foreseeable future development, would incentivize new development, which would create more density in the area, with more high-rise and mid-rise buildings and increased heights in locations near transit and transit hubs. Implementation of the above-noted projects and plans, as well as the subsequent development projects that could occur under the Hub Plan, would intensify the overall look and feel of the area. However, this visual change would not be considered adverse nor conflict with applicable zoning or other regulations governing scenic quality. In addition, underutilized and vacant sites across the Hub Plan area and in areas with other development projects would be developed, enhancing the visual quality and character of these areas.

As with the Hub Plan, other development would not substantially disrupt the existing natural or man-made environment because no scenic resources are present in the Hub Plan area. Furthermore, as with the Hub Plan, proposed streetscape and street network changes, combined with reasonably foreseeable projects, would result in visually enhanced and softened streetscapes in the Hub Plan area. New street trees and attractive lighting would soften streetscapes and add visual contrast to the Hub Plan area, create more public spaces that would be scaled toward people walking, and reduce the amount of space allocated for

²⁶ San Francisco Planning Code section 270.

²⁷ San Francisco Planning, *San Francisco Urban Design Standards*, March 22, 2018, http://default.sfplanning.org/plans-and-programs/planning-for-the-city/Urban-Design-Guidelines/Urban_Design_Guidelines.pdf, accessed: July 5, 2019

²⁸ San Francisco Planning Commission, *Residential Design Guidelines*, 2003, <http://sf-planning.org/sites/default/files/FileCenter/Documents/5356-resdesfinal.pdf>, accessed: March 13, 2018.

the private automobile. These are considered beneficial visual changes. Therefore, the Hub Plan, combined with reasonably foreseeable projects, would not substantially affect scenic resources, views, scenic vistas, or light and glare. Therefore, cumulative impacts would be *less than significant*.

Mitigation: None required.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
3. POPULATION AND HOUSING. Would the project:					
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

EXISTING CONDITIONS

The San Francisco Housing Inventory, November 2017, reports that there were 387,597 housing units in the city in 2016, an increase of 5,046 since 2015.²⁹ Between 2010 and 2016, nearly 15,037 units were added to the city’s housing stock, reflecting an annual growth rate of approximately 0.6 percent and a sharp acceleration in development and the construction of new housing units.³⁰

For the same time period, from 2010 to 2016, the city experienced population growth at a slightly faster rate. According to the U.S. Census Bureau, there were approximately 805,235 people living in San Francisco in 2010.³¹ In 2016, there were 850,282 people living in San Francisco,³² reflecting an annual growth rate of 0.8 percent. These trends suggest that additional housing is needed to match the growth rate in the city’s population. Also, during this time period, the city’s average household size increased slightly, increasing from 2.26 persons per household (pph) in 2010³³ to 2.33 pph in 2016.³⁴

²⁹ San Francisco Planning Department, *2016 San Francisco Housing Inventory*, November 2017, http://default.sfplanning.org/publications_reports/2016_HousingInventory.pdf, accessed: February 6, 2018.

³⁰ Ibid.

³¹ U.S. Census Bureau. *DP-1 Profile of General Population and Housing Characteristics: 2010*, 2010, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_SF1DP1&prodType=table, accessed: February 6, 2018.

³² U.S. Census Bureau, *DP05 ACS Demographic and Housing Estimates, 2012–2016*, American Community Survey 5-year Estimates, 2017, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_DP05&prodType=table, accessed: February 6, 2018.

³³ U.S. Census Bureau, *DP-1 Profile of General Population and Housing Characteristics, 2010*, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_SF1_SF1DP1&prodType=table, accessed: February 6, 2018.

³⁴ U.S. Census Bureau, *B25010 Average Household Size of Occupied Housing Units by Tenure, 2012–2016*, American Community Survey 5-year Estimates, 2017, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B25010&prodType=table, accessed: February 6, 2018.

Table E.3-1 shows the city’s population and housing changes between 2010 and 2016.

TABLE E.3-1. CITY POPULATION AND HOUSING, 2010–2016

	2010	2016	Annual Growth 2010–2016
Population	805,235	850,282	0.8
Housing Units	372,560	387,597	0.6
Persons per Household	2.26	2.33	—

Source: San Francisco Planning Department 2017; U.S. Census Bureau 2010, 2017.

As of September 2018, the Hub Plan area had approximately 3,500 housing units and a population of 8,100 people.³⁵ Residential units in the Hub Plan area account for approximately 0.9 percent of the city’s housing units. The Hub Plan area is not home to a large amount of deed-restricted below-market-rate housing. The majority of the Hub Plan area contains between zero and 12 percent below-market-rate housing. For comparison purposes, areas in the Western Addition neighborhood contain 13 to 25 percent below-market-rate housing, and areas in the SoMa neighborhood contain 26 to 44 percent below-market-rate housing.³⁶ No residents currently reside on the project sites at 30 Van Ness Avenue and 98 Franklin Street.

GROWTH ANTICIPATED IN REGIONAL AND LOCAL PLANS

San Francisco’s central location, historic function as a job nucleus and employment hub for the region, and access to jobs and transit are some reasons why the city’s share of regional population is expected to increase.

PROJECTED GROWTH – PLAN BAY AREA

Senate Bill 375, adopted in 2008, requires preparation of a Sustainable Communities Strategy, as described below, as part of the Regional Transportation Plan for the Bay Area. Plan Bay Area, which incorporates the *ABAG Projections 2013*, is the Sustainable Communities Strategy for the region. It was jointly approved in July 2017 by ABAG and the MTC.^{37,38} The plan provides a transportation and land use/housing strategy for the Bay Area to use to address its transportation, mobility, and accessibility needs; land development concerns; and GHG

³⁵ San Francisco Planning Department, *Hub Plan Development Estimates and Methodology*, September 4, 2018.

³⁶ City and County of San Francisco Department of Public Health, *Proportion of San Francisco Housing Stock that Is Affordable*, Environmental Health Section, n.d., http://www.sfindicatorproject.org/img/indicators/pdf/Affordable_Housing.pdf, accessed: March 8, 2018.

³⁷ The Metropolitan Transportation Commission is the government agency responsible for regional transportation planning, financing, and coordinating in the nine-county San Francisco Bay Area.

³⁸ Although Plan Bay Area was updated in 2017, the 2013 projections are still the most current for cities and counties in the Bay Area. Plan Bay Area does have updated projections for 2040 at the regional level.

emission reduction requirements through 2040. The Hub Plan area, including the two individual development projects, is located within the Market-Octavia/Upper Market Priority Development Area, one of 12 Priority Development Areas in the city.³⁹ Priority Development Areas are areas where new compact development is promoted, particularly near existing and future transit connections, to support the needs of residents and employees.

As shown in **Table E.3-2**, the Bay Area is expected to gain more than 2.1 million residents between 2010 and 2040, reaching a total population of approximately 9.3 million, or a 30 percent increase compared with the 2010 population.⁴⁰ The number of households is expected to increase by 29 percent (700,000) to approximately 3.3 million, and the number of housing units is expected to increase by 24 percent (660,000) to approximately 3.45 million.^{41 42} A housing unit is a house, an apartment, a group of rooms, or a single room occupied or intended for occupancy as separate living quarters, while households are occupied housing units.

TABLE E.3-2. CITY AND BAY AREA POPULATION PROJECTIONS, 2010–2040

	2010	2020	2030	2040	Growth 2010–2040
Population					
City and County of San Francisco	805,235	890,400	981,800	1,085,700	280,465 (35%)
Bay Area	7,150,739	7,786,800	8,496,800	9,299,100	2,148,361 (30%)
Housing Units					
City and County of San Francisco	376,940	N/A	N/A	469,350	92,410 (29%)
Bay Area	2,786,000	N/A	N/A	3,450,000	660,000 (24%)
Households					
City and County of San Francisco	345,811	379,600	413,370	447,350	101,539 (29%)
Bay Area	2,608,023	2,837,680	3,072,920	3,308,090	700,067 (29%)

Source: Association of Bay Area Governments, *Projections 2013*, December 2013; Association of Bay Area Governments and Metropolitan Transportation Commission, *Jobs-Housing Connection Strategy*, May 16, 2012.
N/A = information is not available

³⁹ Association of Bay Area Governments and Metropolitan Transportation Commission, *Plan Bay Area 2040, Priority Development Area and Transit Priority Area Map for CEQA Streamlining*, 2018, <https://www.planbayarea.org/pda-tpa-map>, accessed: March 8, 2018.

⁴⁰ Association of Bay Area Governments, *Projections 2013*, December 2013.

⁴¹ Ibid.

⁴² Association of Bay Area Governments and Metropolitan Transportation Commission, *Jobs-Housing Connection Strategy*, May 16, 2012, https://www.planbayarea.org/sites/default/files/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf, accessed: February 6, 2018.

In the Bay Area, the Sustainable Communities Strategy and the Regional Housing Needs Allocation (RHNA) are mutually reinforcing. They were developed together to meet the overlapping objectives of Senate Bill 375 and housing element law. The objectives include increasing the supply, diversity, and affordability of housing; promoting infill development and a more efficient land use pattern; promoting an improved intraregional relationship between jobs and housing; protecting environmental resources; and promoting socioeconomic equity. Senate Bill 375, which requires the RHNA to be consistent with the Sustainable Communities Strategy, establishes an 8-year cycle for the RHNA. The 2014–2022 RHNA, discussed below, has been incorporated into Plan Bay Area.⁴³

PROJECTED GROWTH – SAN FRANCISCO HOUSING ELEMENT

The 2014 housing element (adopted April 2015) of the San Francisco General Plan identifies the Hub Plan area as an appropriate location for high-density housing near transit and jobs to meet the city’s short-term (to 2025) and longer-term (to 2040) housing production goals.⁴⁴ The housing element requires zoning and development standards that encourage and promote below-market-rate housing as well as a diverse range of housing opportunities. In addition, it describes housing needs in the city and identifies development capacity for new housing, based on land supply. The element focuses on the city’s critical need for below-market-rate housing. The housing element establishes goals for housing production as well as policies related to reducing the impacts of growth on the housing market.⁴⁵

According to the department and ABAG, San Francisco is expected to gain approximately 101,000 households and 280,000 residents between 2010 and 2040 and have a population of more than 1 million, a 35 percent increase in residential population. Employment is forecast to increase by 34 percent (191,000 jobs) during this period to a total of approximately 760,000.⁴⁶

ABAG, in coordination with the California State Department of Housing and Community Development, determines the Bay Area’s regional housing need, which is based on regional

⁴³ Association of Bay Area Governments and Metropolitan Transportation Commission, *Plan Bay Area 2040: Strategy for a Sustainable Region*, adopted: July 26, 2017.

⁴⁴ San Francisco Planning Department, *2014 Housing Element: An Element of the General Plan of the City and County of San Francisco*, April 2015, http://default.sfplanning.org/plans-and-programs/planning-for-the-city/housing-element/2014HousingElement-AllParts_ADOPTED_web.pdfhttp://208.121.200.84/ftp/files/plans-and-programs/planning-for-the-city/housing-element/2014HousingElement-AllParts_ADOPTED_web.pdf, accessed: February 6, 2018.

⁴⁵ Ibid.

⁴⁶ Association of Bay Area Governments and Metropolitan Transportation Commission, *Jobs-Housing Connection Strategy*, May 16, 2012, https://www.planbayarea.org/sites/default/files/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf, accessed: February 6, 2018.

trends, projected job growth and existing needs. San Francisco's fair share of the regional housing need for January 2015 through June 2022 was calculated to be 28,870 units, or about 3,850 units per year.⁴⁷ The goal is to alleviate the tight housing market stemming from forecast household and employment growth as well as allocate regional household and employment growth to jurisdictions with established or planned transit infrastructure. More important, the RHNA determination includes production targets that address the housing needs of a range of household income categories. A total of about 16,333 units, or 57 percent of the RHNA target, must be below-market-rate to households making 120 percent of the area median income or less. With respect to income category, ABAG determined that, between January 2015 and June 2022, the city would need to provide approximately 6,234 housing units to those with very low incomes, 4,639 housing units to those with low incomes, and 5,460 housing units to those with moderate incomes to meet its RHNA obligations.⁴⁸

As discussed in the 2014 housing element, between 2007 and the first quarter of 2014, the City made progress toward meeting targets for market-rate housing under the 2007–2014 RHNA. The City met 41 percent of its production goal for low-income housing (i.e., less than 80 percent of area median income) and 16 percent of its production goal for moderate-income housing (i.e., 80 to 120 percent of area median income). When the 2014 housing element was prepared, the 2015–2022 planning period had not begun; therefore, the “housing pipeline” was used to provide an estimate of the future quantity of housing and determine how it compared to the RHNA targets. The department defines the pipeline as those projects that are under construction or that have been approved by the San Francisco Department of Building Inspection (building department) within the past 3 years or filed within the past 5 years. As shown in **Table E.3-3**, housing production in the city is estimated to total approximately 20,170 units, including units in the pipeline, units to be rehabilitated (non-public housing), and units for conservation/preservation (public housing). Compared to the RHNA targets for 2014–2022, this would result in an estimated shortfall in the city of approximately 8,699 units.⁴⁹ San Francisco's share of the RHNA is incorporated into the City's 2014 housing element (originally adopted in March 2011 and most recently re-adopted with amendments on April 27, 2015). As required by state law, the housing element of the general plan discusses the city's fair-share allocation of regional housing needs by income, as projected by ABAG.

⁴⁷ San Francisco Planning Department, *2014 Housing Element: An Element of the General Plan of the City and County of San Francisco*, April 2015, http://generalplan.sfplanning.org/2014HousingElement-AllParts_ADOPTED_web.pdf, accessed: February 6, 2018.

⁴⁸ Ibid.

⁴⁹ Ibid.

TABLE E.3-3. ABAG REGIONAL HOUSING NEED ALLOCATION FOR 2014–2022 (UNITS) COMPARED TO THE NEW HOUSING CONSTRUCTION PIPELINE, Q2 2014

Income Level	Regional	City/County		
	RHNA Targets	RHNA Targets	Total Estimated Housing Production ^{a,b}	Estimated Shortfall
<i>Very Low</i>	46,680	6,234	1,425	-4,809
<i>Low</i>	28,940	4,639	5,880	1,241
<i>Moderate</i>	33,420	5,460	695	-4,765
Subtotal of Below-Market-Rate Units	109,040	16,333	8,000	-8,333
Above Moderate ^c	78,950	12,536	12,170	-366
Total	187,990	28,869	20,170	-8,699

Sources: Association of Bay Area Governments. 2013. *Regional Housing Need Plan for the San Francisco Bay Area: 2014–2022*. Adopted: July 18, 2013; City and County of San Francisco. 2015. *City and County of San Francisco General Plan (2014 Housing Element)*. Adopted: April 27, 2015. Available: https://www.sf-planning.org/ftp/General_Plan/2014HousingElement-AllParts_ADOPTED_web.pdf, Accessed: February 6, 2018.

Notes:

- a. Does not include three major development projects with a net total of 23,700 units: Hunters Point, Treasure Island, and Parkmerced, which include a total of up to 5,400 net below-market-rate units.
- b. Includes entitled units, rehabilitation (non-public housing), and conservation/preservation (public housing).
- c. Above Moderate: Households with incomes greater than 120 percent of the county median family income. ABAG does not use the Above Moderate category. This category is included in the RHNA and the analysis below to provide decision-makers with more information on housing impacts for the broad spectrum of new worker households associated with the proposed project.

ACCOMMODATING JOBS AND HOUSING GROWTH AND PLAN RATIONALE

As discussed above, San Francisco’s official quantified targets for addressing housing needs are provided by ABAG, in coordination with the California Department of Housing and Community Development, as part of the RHNA. The RHNA is required by state law to promote the state’s interest in increasing housing supply, increasing the mix of housing types and affordability in all jurisdictions, facilitating infill development and efficient development patterns, protecting environmental resources, and reducing inter-regional commuting. The needs are defined in terms of housing market factors, such as accommodating projected demand due to household growth, employment growth, and the need to transition commuters into residents; increasing the vacancy rate to provide more choice and less upward pressure on prices and rents; and increasing the supply of below-market-rate housing options. ABAG allocates regional housing needs among jurisdictions, based on factors that consider existing employment, employment growth, household growth, and the availability of transit. Region-wide income distributions complete the allocation by household income category.

The adoption of Senate Bill 375, which required California regions as a whole to reduce GHG emissions by linking growth to transit, resulted in increased pressure on San Francisco (and other major cities, such as San José and Oakland) to accommodate a major portion of the region's growth. The City has undertaken significant planning efforts to direct housing toward transit-supported areas. The Hub Plan area was identified as one of the areas that would be able to accommodate additional housing, particularly below-market-rate housing, given its proximity to transit.

Among San Francisco's neighborhoods, the Hub Plan area (including the locations for the two individual development projects) provides a unique opportunity to create more housing space at locations that are readily accessible to both regional and local transit. As discussed in Section B, Project Setting, the Hub Plan area is in the vicinity of numerous public transit routes, including San Francisco Municipal Railway (Muni) light-rail lines, Muni coach routes, Muni rapid routes, the F-line's historic streetcar, and regional transit routes provided by Golden Gate Transit, the Blue & Gold Fleet water ferries, and the Water Emergency Transportation Authority. Its location contains many local transit options and several connections to regional transit, such as the Bay Area Rapid Transit (BART) stations approximately 0.25 mile east of the Hub Plan area at the Civic Center on Market Street. The Hub Plan area's adjacency to the major job centers in downtown and Mission Bay makes it a natural next step for housing growth. Finally, its capacity for new development, combined with its existing building stock, provides the opportunity to expand not only the amount but also the types of housing that the city has to offer.

Planning for more intensive new development in the Hub Plan area, including the two individual development projects, to accommodate a larger population and more employment than would otherwise be the case is one of the means by which San Francisco and the region as a whole can meet state mandates under Senate Bill 375 for a Sustainable Communities Strategy to reduce per-capita GHG emissions. The long-term projections for city and regional population and employment growth are the basis for the housing, transportation, other infrastructure, and public services and utilities planning conducted at a city and regional level. They are also the basis for efforts to secure the funding and financial support essential to realizing this level of infill development.

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The

proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

Effects on population and housing could result as subsequent development projects allowed under the Hub Plan replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area and therefore are analyzed on a project-specific level.

Population growth is considered in the context of local and regional plans as well as population, housing, and employment projections. Generally, a project that induces population growth is not viewed as having a significant impact on the environment unless the physical changes that would be needed to accommodate project-related population growth would have adverse impacts on the environment. CEQA Guidelines, section 15064(e), states that an economic or social change by itself would not be considered a significant effect on the environment. Employment and residential growth related to the Hub Plan would result primarily in physical changes related to transportation, noise, air pollutant emissions, GHG emissions, and demand for public services, utility capacity, and recreational facilities. These physical impacts are analyzed under the other environmental topics in this document, such as Section E.9, Greenhouse Gas Emissions; Section E.12, Recreation; Section E.13, Utilities and Services Systems; and Section E.14, Public Services.

An indirect environmental impact is a change to the physical environment that is not immediately related to the proposed project (CEQA Guidelines section 15064(d)(2)). Specifically, project-related growth-inducing effects include ways in which a project could foster economic or population growth or the construction of additional housing, either directly

or indirectly. Projects that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant) might, for example, allow for development to occur in an area that was not previously considered feasible for development because of infrastructure limitations (CEQA Guidelines section 15126.2(d)). As such, indirect population growth is a secondary impact, which is considered below under Impact PH-1.

This analysis considers whether the population and household growth that would occur with implementation of the Hub Plan and the two individual development projects would be considered substantial relative to remaining planned growth potential in the city. ABAG projections were used to analyze whether the growth caused by the project would be within planned growth projections. Specifically, ABAG projections for 2020 are used to represent existing (baseline) conditions, and projections for 2040 are used to represent future (build-out) conditions. Growth that exceeds planned growth would be considered substantial. As shown in **Table E.3-4**, the Hub Plan could result in up to 15,700 new city residents.

This analysis also considers the Hub Plan’s impact on the projected (2040) jobs/housing ratio in the city by calculating the projected jobs/housing ratio with and without the Hub Plan.

TABLE E.3-4. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Residents			
The Hub Plan	8,100 units ^a	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	15,700 residents ^c
30 Van Ness Avenue ^d	520,000 sf/610 units 229 studios 229 one-bedroom units 92 two-bedroom units 60 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	1,067 residents
98 Franklin Street ^d	384,080 sf/345 units 172 studios 86 one-bedroom units 54 two-bedroom units 33 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	587 residents

TABLE E.3-4. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Employees			
The Hub Plan – Commercial	N/A	N/A	275 employees ^e
30 Van Ness Avenue – Office	350,000 sf	240 sf/employee	1,460 employees ^f
30 Van Ness Avenue – Retail	21,000 sf	350 sf/employee	60 employees
98 Franklin Street – Retail	3,100 sf	350 sf/employee	9 employees ^g
98 Franklin Street – Institutional (school)	81,000 sf	N/A	5 employees

Source: San Francisco Planning Department, *Hub Plan Development Estimates and Methodology*, June 13, 2019.

^a Future residential development under the Hub Plan was calculated by taking anticipated total gross square footage and dividing by 1,200 gross square feet per residential unit. This number was then increased by 15 percent to account for the potential density bonuses, including the State Density Bonus Program, 100 percent Affordable Housing Bonus Program, and HOME-SF (the City and County of San Francisco’s [City’s] local density bonus program).

^b Two or more bedrooms.

^c Future population estimated from a weighted average of 1.94 persons per developed residential unit, assuming a unit mix of 20 percent studio, 40 percent one bedroom, and 40 percent two bedroom, with average occupancy of 1.3, 1.7, and 2.5, respectively. Future population estimate reflects the 15 percent increase in the number of residential units assumed in note “a,” above.

^d The total number of residential units and residents under the 30 Van Ness Avenue and 98 Franklin Street projects is included in the totals provided for the Hub Plan.

^e Jobs were estimated from anticipated gross square footage of development by use type. It is noted that the transportation model run that was completed before 170 Otis was added as one of the Hub Plan sites; however, the approximately 125 employees that could be added on this site as a result of the upzoning under the Hub Plan are accounted for in the 275 additional employees listed in this table under the Hub Plan.

^f This table presents the estimated maximum number of employees that would be generated by the 30 Van Ness Avenue Project. As discussed in Chapter 3, the existing uses at the project site include general office, pharmacy, and restaurant uses. Based on the employee density factors used by the planning department for non-residential uses, these existing uses, in combination, would yield approximately 816 existing employees at the site. Thus, the total number of net new employees that would be generated by the proposed 30 Van Ness Avenue Project is approximately 700. The SF-CHAMP transportation model that was run for the proposed project, with outputs that feed into the transportation, air quality, and noise analyses in this EIR, nets out the existing uses at this site.

^g This table does not take into account approximately two employees associated with the existing parking lot use at 98 Franklin Street.

IMPACTS AND MITIGATION MEASURES

Impact PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not induce substantial unplanned population growth beyond that projected by regional forecasts, either directly or indirectly. (Less than Significant)

CONSTRUCTION

It is anticipated that construction employees associated with subsequent development projects under the Hub Plan, the streetscape and street network improvements, and the individual development projects, who are not already living in the city would commute from their residences elsewhere in the Bay Area rather than permanently relocate to San Francisco from more distant locations; this is typical for employees in the various construction trades. Once the construction phases are complete, construction workers typically seek employment at other job sites in the region that require their particular skills. Thus, construction of the subsequent development projects under the Hub Plan, the streetscape and street network improvements, and the individual development projects, would not generate a substantial unplanned population increase in the city or region. Temporary impacts associated with an unplanned increase in population during the construction periods for subsequent development projects under the Hub Plan, the streetscape and street network projects, and the individual development projects, would be *less than significant*.

OPERATION

Subsequent development projects under the Hub Plan would result in greater development density within the Hub Plan area compared with what is allowed under existing zoning. This is because of the proposed revisions to height and bulk districts at 18 sites and proposed revisions to the zoning districts throughout the southern portion of the Hub Plan area. The Hub Plan seeks to help shape and accommodate population growth within San Francisco, primarily by replacing zoning that currently restricts development at the 18 sites. In addition, the Hub Plan seeks to increase the space available for housing through changes to the planning code that would allow the development of a taller, larger, and overall more diverse array of buildings and heights within the Hub Plan area. The subsequent development projects in the Hub Plan area that could be approved pursuant to the proposed zoning would accommodate the population and job growth already identified for San Francisco and projected to occur within city boundaries. Therefore, they would not induce substantial unplanned population growth, either directly or indirectly.

Table E.3-5 presents estimates for population and housing within the Hub Plan area as a whole, comparing existing conditions (2016) and future no-project conditions in 2040 (growth allowed under current zoning) to the growth allowed under the Hub Plan and under the cumulative

conditions. As shown in **Table E.3-5**, the Hub Plan could result in up to approximately 15,700 new residents and 275 new jobs in the Hub Plan area compared with existing conditions. It is noted that although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) surpasses the total number of jobs listed in **Table E.3-4**, p. E.3-9, for the entire Hub Plan area (275), it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net increase of approximately 275 jobs area wide.

TABLE E.3-5. EXISTING AND FORECAST HOUSING AND POPULATION IN THE HUB PLAN AREA

	Existing	2040 No Project (Growth Allowed under Current Zoning)	The Hub Plan	2040 with the Hub Plan (Cumulative Condition)
Households (units)	3,500	9,300	8,100	22,500
Population	8,100	19,300	15,700	47,500
Jobs	13,200	10,400	275	11,600

Source: San Francisco Planning Department, *Hub Plan Development Estimates and Methodology*, June 13, 2019.

The Hub Plan would not stimulate population or job growth within the city that is not already projected to occur in regional growth forecasts and regional air quality planning efforts. For the city, the number of households and the number of jobs is projected to increase by approximately 101,000 and 191,000, respectively, during the period from 2010 to 2040 (see Growth Anticipated in Local and Regional Plans, above). The Hub Plan would not trigger a need for roadway expansion or result in the extension of infrastructure into previously unserved areas. Rather, by allowing for more density within the Hub Plan area, as well as accommodating the growth that is projected to occur within the city, development under the Hub Plan would alleviate development pressure elsewhere in the city and promote density in the already urbanized and transit-rich Hub Plan area. Therefore, the Hub Plan would not induce substantial unplanned population growth beyond that projected by regional forecasts, either directly or indirectly.

As shown in **Table E.3-4**, p. E.3-9, the 30 Van Ness Avenue Project could generate up to 1,067 onsite residents; the 98 Franklin Street Project could generate up to 587 residents. In total, the two individual development projects could employ up to 1,534 workers (a net increase of 822 workers compared to existing conditions), which is more than the total new jobs under the Hub Plan (275 jobs). However, it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net increase of approximately 275 jobs area wide. Because of this very small increase in jobs, induced population growth from employees is not expected in the Hub Plan area.

The 30 Van Ness Avenue project site is within Census Tract 124.02; the 98 Franklin Street project site is within Census Tract 168.02. Combined, these two census tracts have a total population of approximately 6,961.^{50,51} The two individual development projects would add 1,654 new residents to these two census tracts, which represents a 23.7 percent increase in population compared with existing conditions in the immediate area. Although this increase would be substantial within the local census tracts, it would not be substantial in the context of citywide growth, as described below. In addition, the two individual development projects are within the Market-Octavia/Upper Market Priority Development Area, which is designated for new development that supports the needs of residents and employees.

As shown in **Table E.3-2**, p. E.3-3, ABAG projects that the city's population will increase by approximately 195,300, from 890,400 in 2020 to 1,085,700 in 2040, while the Bay Area population will increase by approximately 1,512,300. Therefore, the maximum amount of residential growth that would occur under the Hub Plan, including the two individual development projects, would be approximately 8 percent of the residential growth expected in the city and individual development projects, in total, would represent 0.8 percent of the city's expected approximately 1 percent of the residential growth expected in the Bay Area.⁵² The two growth from 2020 to 2040 and approximately 0.1 percent of expected Bay Area growth.⁵³ Per ABAG population projections, this is anticipated growth for the city.

Infrastructure (e.g., wastewater and electricity transmission infrastructure) that would be developed would be sized to meet the needs of visitors, businesses, and residents at the two individual development project sites. Because this proposed infrastructure would be sized to meet the needs of each individual development project, it would not lead to additional unplanned indirect population growth or the need for additional housing beyond that generated by each individual development project. The proposed streetscape and street network changes that would be implemented as part of the Hub Plan would not have any impacts on population and housing because they would not induce unplanned population

⁵⁰ U.S. Census Bureau, *B01003 Total Population, 2012–2016, American Community Survey 5-year Estimates, 2017*, https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_16_5YR_B01003&prodType=table, accessed: February 6, 2018.

⁵¹ The two census tracts that include 30 Van Ness Avenue and 98 Franklin Street compose an area smaller than and different from the exact Hub Plan area boundaries, which accounts for the larger population located within the Hub Plan area (8,100) compared to the two census tracts (6,961).

⁵² To calculate the amount of growth in the city and Bay Area, the total number of new residents added under the Hub Plan (15,700) is divided by the anticipated growth in the city (195,300) and Bay Area (1,512,300). City growth: $(15,700 \text{ new residents} / 195,300) \times 100 = 8\%$; Bay Area growth: $(15,700 \text{ new residents} / 1,512,300) \times 100 = 1\%$.

⁵³ To calculate the amount of growth in the city and Bay Area, the total number of new residents added under the two individual development projects (1,654) is divided by the anticipated growth in the city (195,300) and Bay Area (1,512,300). City growth: $(1,654 \text{ new residents} / 195,300) \times 100 = 0.8\%$; Bay Area growth: $(1,654 \text{ new residents} / 1,512,300) \times 100 = 0.1\%$.

growth in the Hub Plan area, either directly or indirectly. Specifically, changes to the streetscape and street network would be related primarily to improving circulation for people bicycling or walking and would not provide additional access to the area that would further induce population. Therefore, the Hub Plan and the two individual development projects would not induce substantial unplanned population growth beyond that projected by regional forecasts, either directly or indirectly. This impact would be *less than significant*.

Mitigation: None required.

Impact PH-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate housing demand beyond projected housing forecasts. (Less than Significant)

As a regulatory program, the Hub Plan would not result in immediate physical effects but rather would result in new planning policies and zoning controls to accommodate additional housing. The Hub Plan would help accommodate regional growth projections for San Francisco and shape and direct that growth toward appropriate locations. Because San Francisco is a regional job center, and because the Hub Plan area is near local and regional transit lines, the Hub Plan area is appropriate for new housing development. As discussed below, potential housing demand generated by commercial and office development is not expected in the Hub Plan area.

This section also analyzes the effects of housing demand generated by the two individual development projects. The proposed streetscape and street network changes that would be implemented as part of the Hub Plan would not have any impacts on population and housing because they would not generate demand for housing units.

EMPLOYMENT-RELATED HOUSING DEMAND

As shown in **Table E.3-4**, p. E.3-9, the Hub Plan could result in 275 new jobs in the Hub Plan area compared with existing conditions. The two individual development projects could employ up to 1,534 workers (a net increase of 822 workers compared to existing conditions). For the reasons discussed above, induced population growth and employment-related housing demand are not expected in the Hub Plan area. Therefore, there would be a *less-than-significant* impact from employment-related housing demand.

HOUSING DEMAND

Given the regional imbalance between housing supply and demand, the Hub Plan recognize that it is important to capitalize on opportunities to provide more housing in appropriate locales. Specific sites have been identified in the Hub Plan area for height increases in order to provide more housing (see **Table 2-1**, p. 2-24); these include the sites for the two individual development projects. Moreover, the proposed zoning district reclassifications, as well as the proposed expansion of the Van Ness and Market Downtown Residential SUD, are intended to incentivize and encourage residential development in the Hub Plan area. From a location and

transit perspective, the Hub Plan area is a logical housing growth center. The Hub Plan's key strategies for enhancing development potential include increased densities, a wide and flexible range of uses, and increased height limits. With these changes to height and bulk limits, as well as development densities, the department estimates that 8,100 additional housing units could be developed in Hub Plan area by 2040.

An increase in development would improve San Francisco's ability to meet housing demand and reduce the number of commuters who live outside the city and drive to work. Furthermore, an increase in housing supply in the Hub Plan area would reduce demand pressure from employment growth on the older housing stock in the city.

Developers of new housing (projects with five or more units) in the Hub Plan area would be required to participate in San Francisco's Inclusionary Affordable Housing Program. The fees required of these developers would generate revenue for the Citywide Affordable Housing Fund, which would be used to increase the supply of below-market-rate housing in San Francisco. Payment of the fees would satisfy the City's land use regulatory requirement and offset the documented impact of market-rate housing development on demand for below-market-rate housing in San Francisco. Furthermore, non-residential development in the Hub Plan area would be required to participate in the Jobs-Housing Linkage Program, which would offset any residual impact related to increased housing prices and rents and the need for below-market-rate housing in San Francisco. Any Jobs-Housing Linkage Program revenue generated by development projects in the Hub Plan area would be deposited in the Citywide Affordable Housing Fund and used to increase the supply of below-market-rate housing in San Francisco.

Individual development projects would be consistent with City and regional planning efforts related to housing and would help the City reach its RHNA targets by constructing both market-rate and below-market-rate housing units. New rental housing built for the individual development projects would meet or exceed the inclusionary housing requirements set forth in section 415 of the City's planning code. Consistent with these requirements, the project sponsors would provide onsite below-market-rate residential units. Income restrictions would be enforceable through a development agreement or other similar binding agreement as well as deed restrictions on the property. The 30 Van Ness Avenue Project would provide approximately 25 percent of all residential units as below-market-rate units for a mix of low- to moderate-income households or approximately 33 percent as below-market-rate at an offsite location nearby. For the 98 Franklin Street Project, 18 percent of the residential units at each site would be below-market-rate units. Therefore, the individual development projects would contribute to the City's RHNA targets.

As noted above, the individual development projects would focus development in an area that has been identified by the City and ABAG as a Priority Development Area. As such, the sites for the two individual development projects would be suitable for the population, housing, and employment growth forecast in local and regional planning documents. Development on the sites would help the City accommodate planned population and employment growth.

JOBS/HOUSING BALANCE

The jobs/housing balance refers to the ratio of the total job count in a jurisdiction to the total household count in the same area. The ratio is an indicator of the extent to which the workforce may have an opportunity to live and work in the same community, assuming that the occupations and skills of the employees match the occupations and skills required for the jobs and that the housing supply meets the needs of those employees. Local governments may use the jobs/housing balance as a planning tool for achieving particular policy outcomes. It is not, however, a regulatory tool and does not necessarily imply a physical change in the environment or relate to any recognized threshold of significance under CEQA. A worsening of the jobs/housing balance may, however, be an indicator of longer commute times, the associated environmental consequences of which, such as impacts related to transportation, air quality, and GHG emissions, are discussed in the EIR. Therefore, the jobs/housing balance is discussed below for informational purposes.

As discussed above, the Hub Plan, including the two individual development projects, would allow for the construction of approximately 8,100 housing units (expected to house approximately 15,700 residents). As shown in **Table E.3-6**, implementation of the Hub Plan, including the two individual development projects, would allow for the improvement the city's projected jobs/housing ratio in 2040, moving from 1.70 to 1.67 (the ideal jobs/housing ratio is 1.0).

TABLE E.3-6. JOBS AND HOUSING UNITS IN THE CITY THROUGH 2040 WITH THE HUB PLAN

	2020	2040
Jobs in San Francisco (Baseline with the Proposed Project)	671,230	759,500
Housing in San Francisco (Baseline with the Proposed Project)	379,600	447,350
Jobs/Housing Unit Ratio without the Proposed Project	1.77	1.70
Jobs/Housing Unit Ratio with the Proposed Project ^a	N/A	1.67

Source: Association of Bay Area Governments, *Projections 2013*, December 2013.

^a. The following calculations were completed: Jobs: 759,500 + 275 = 759,775; Housing: 447,350 + 8,100 = 455,450; Jobs/Housing Ratio: 759775,/455,450 = 1.67.

Overall, the conservatively estimated housing demand resulting from the Hub Plan and the two individual development projects would be accommodated by increases in the housing supply, primarily within the Hub Plan area. The impact would be *less than significant*.

Mitigation: None required.

Impact PH-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not displace substantial numbers of existing people or housing units, necessitating the construction of replacement housing outside of the Hub Plan area. (Less than Significant)

THE HUB PLAN

Although the Hub Plan is a regulatory program with no immediate physical effects, subsequent development projects under the Hub Plan would incentivize new development, which could require the demolition of housing units within the Hub Plan area. However, from the perspective of the city's housing stock, the potential loss of housing units as a result of development under the Hub Plan would be offset by the potential production of up to approximately 8,100 net new housing units within the Hub Plan area, in addition to residential development elsewhere in San Francisco that has been occurring or is expected to occur in the future. In addition, project sponsors associated with subsequent development projects in the Hub Plan area would be required to either provide onsite or offsite residential units or pay fees under the Jobs/Housing Linkage Program and Inclusionary Affordable Housing Program.

The proposed streetscape and street network changes that would be implemented as part of the Hub Plan would not have any impacts on population and housing because they would not displace housing units or people or necessitate the construction of replacement housing.

It would be speculative to estimate precisely how many of the 3,500 existing housing units that exist in the Hub Plan area would be demolished as a result of subsequent development projects allowed under the Hub Plan, but it is likely that some of them would be demolished. However, the Hub Plan is designed to promote density within the Hub Plan area, and neither would displace larger numbers of housing units or people than could be accommodated in the new construction. Furthermore, adherence to Planning Code section 317, which requires replacement of residential structures lost through demolition, would ensure that the city's housing stock would be conserved and maintained. Therefore, any housing displacement that would occur as a result of subsequent development projects allowed under the Hub Plan would not necessitate the construction of replacement housing elsewhere. This impact would be *less than significant*.

INDIVIDUAL DEVELOPMENT PROJECTS

The proposed project at 30 Van Ness Avenue includes retention of portions of the existing building and construction of an approximately 45-story building with ground-floor commercial space, 11 floors of office space, and 33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of a surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would serve as new high school facilities for the International High School (grades 9–12 of FAIS). None of these individual development

projects would involve demolition of any existing housing units. Therefore, the two individual development projects would not displace housing units or people or necessitate construction of replacement housing elsewhere. This impact would be *less than significant*.

Mitigation: None required.

Impact C-PH-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and, cumulatively, other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact on population or housing. (Less than Significant)

Housing and employment growth in San Francisco is consistent with the projections contained in Plan Bay Area, which is the current Regional Transportation Plan/Sustainable Communities Strategy that was adopted by MTC and ABAG in July 2017, in compliance with California's governing GHG reduction legislation, Senate Bill 375. Plan Bay Area calls for an increasing percentage of Bay Area growth to occur as infill development in areas with good transit access and where the services necessary for daily living are provided in proximity to housing and jobs. With its abundant transit service and mixed-use neighborhoods, San Francisco is expected to accommodate an increasing share of future regional growth. Therefore, the Plan Bay Area projections represent the context for the cumulative analyses.

The purpose of the Hub Plan, subsequent development projects under the Hub Plan, and the two individual development projects is to accommodate the projected housing growth identified for San Francisco. Therefore, the subsequent development projects that would be incentivized under the Hub Plan, including the two individual development projects, would not (1) induce unplanned population growth beyond that projected and (2) would not directly displace housing or necessitate the construction of replacement housing outside of the Hub Plan area. Subsequent development projects could result in the displacement of housing; however, the replacement of displaced units would be required on a project-specific basis, based on regulations in Planning Code section 317 related to the removal of dwelling units. Office and other non-residential development would be required to pay in-lieu fees pursuant to the Jobs-Housing Linkage Program. Therefore, subsequent development projects pursuant to the Hub Plan would not make a considerable contribution to any housing displacement anticipated as a result of implementation of Plan Bay Area.

The majority of the projects included in **Table 3-2, Cumulative Projects**, p. 3-7, of the Draft EIR are residential mixed-use or housing projects that would increase the residential population of the project area. Consistent with the 2014 housing element and the 2008 Market and Octavia Neighborhood Plan, a substantial residential population increase is anticipated in the vicinity of the Hub Plan area. This growth is consistent with the goals of Plan Bay Area.

San Francisco Mayor's Executive Directive 17-0225 calls for the construction of "at least 5,000 units of new or rehabilitated housing every year for the foreseeable future" as well as

implementation of the policies needed to facilitate the construction.⁵⁴ Almost all of the projects in **Table 3-2, Cumulative Projects**, p. 3-7, of the Draft EIR include substantial housing components. Therefore, cumulative growth in the Hub Plan area is not expected to result in a cumulative demand for new housing. The Hub Plan area is well served by existing infrastructure, and past, present, and reasonably foreseeable transportation projects, such as Better Market Street and Van Ness Bus Rapid Transit, will provide transportation improvements to serve the anticipated population growth.

The proposed streetscape and street network changes that would be implemented as part of the Hub Plan would not have any impacts on population and housing; therefore, they would not make a considerable contribution to any cumulative impact on population or housing. For these reasons, the Hub Plan and the two individual development projects, in combination with other past, present, and reasonably foreseeable future projects, would result in a cumulatively considerable population and housing impact. Accordingly, cumulative effects related to population and housing would be *less than significant*.

Mitigation: None required.

⁵⁴ Office of the Mayor, *Executive Directive 17-02*, <https://sfmayor.org/article/executive-directive-17-02>, accessed: November 9, 2018.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
4. CULTURAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a historical resource pursuant to section 15064.5, including those resources listed in article 10 or article 11 of the San Francisco Planning Code?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to section 15064.5?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Implementation of any of the project’s components, including the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, would have the potential to result in significant impacts on cultural resources. Accordingly, this topic is further analyzed and included in the EIR.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
5. TRIBAL CULTURAL RESOURCES. Would the project:					
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

REGULATORY SETTING

This section describes the applicable state regulations that define and provide guidance for the identification of, and analysis of impacts on, tribal cultural resources. Tribal cultural resources were originally identified as a distinct CEQA environmental category with the adoption of Assembly Bill 52 in September 2014. For all projects that are subject to CEQA that received a notice of preparation, notice of negative declaration, or mitigated negative declaration on or after July 1, 2015, Assembly Bill 52 requires the lead agency on a proposed project to consult with the geographically affiliated California Native American tribes. The legislation creates a broad new category of environmental resources, “tribal cultural resources,” which must be considered under CEQA. Assembly Bill 52 requires a lead agency to not only consider the resource’s scientific and historical value but also whether it is culturally important to a California Native American tribe.

Assembly Bill 52 defines tribal cultural resources as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register); included in a local register of historical resources, as defined in Public Resources Code section 5020.1(k); or determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to the criteria of Public Resources Code section 5024.1(c) (CEQA section 21074). The California Register criteria for the listing of resources, as defined in Public Resources Code section 5024.1(c), are the following:

- (1) The resource is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- (2) The resource is associated with the lives of persons important in our past.
- (3) The resource embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- (4) The resource has yielded, or may be likely to yield, information important in prehistory or history.

Assembly Bill 52 also sets up an expanded consultation process. For projects initiated after July 1, 2015, lead agencies are required to provide notice of the proposed projects to any tribe that is traditionally and culturally affiliated with the geographic area that requested to be informed by the lead agency, following Public Resources Code section 21018.3.1 (b). If, within 30 days, a tribe requests consultation, the consultation process must begin before the lead agency can release a draft environmental document. Consultation with the tribe may include discussion of the type of review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The consultation process will be deemed concluded when either (a) the parties agree to mitigation measures or (b) any party concludes, after a good-faith effort, that an agreement cannot be reached. Any mitigation measures agreed to by the tribe and lead agency must be recommended for inclusion in the environmental document. If a tribe does not request consultation, or otherwise assist in identifying mitigation measures during the consultation process, a lead agency may still consider mitigation measures if the agency determines that a project will cause a substantial adverse change to a tribal cultural resource.

APPROACH TO ANALYSIS

In 2015, the department undertook discussions with legally recognized Native Americans of San Francisco regarding tribal cultural resources as part of implementation of recent changes in CEQA. Based on discussions with Native American tribal representatives, prehistoric archaeological resources are presumed to be potential tribal cultural resources. No other known or potential tribal cultural resources in San Francisco were identified at that time. An agreement on a tribal cultural resource notification list, procedural requirements for notification, tribal consultation procedures, the types of sites that would be treated as prima facie tribal cultural resources, and appropriate mitigation strategies for the treatment of identified tribal cultural resources that may be adversely affected by a project also resulted from those discussions. Mitigation strategies developed with local Native American tribal representatives included preservation-in-place strategies or interpretive programs developed in consultation with the consulting Native American tribal group.

On January 29, 2019, the department sent out notification letters to legally recognized Native American tribes that had requested notification, per the process just outlined, regarding the Hub Plan, the two individual projects, and the Hub HSD.

On March 13, 2019, the department followed up with Andrew Galvan, who had requested information on the project after being notified by ICF on December 11, 2018, as part of Native American outreach conducted outside the Assembly Bill 52 process. On March 21, 2019, Mr. Galvan requested a copy of any phase 1 literature search and/or foot survey conducted for this project. A copy of the archaeological research design and treatment plan⁵⁵ was provided by the department to Mr. Galvan on April 2, 2019. As of June 21, 2019, no responses to the letters or further requests have been received.

As indicated previously, the department considers prehistoric archaeological resources to be potential tribal cultural resources. As identified in the archaeological research design and treatment plan,⁵⁶ three such resources (CA-SFR-28, CA-SFR-136/H, and CA-SFR-148) are in the Hub Plan area. As of the writing of this document, no Native American tribes have identified these resources as being tribal cultural resources; however, based on previous discussions with Native American representatives, the department assumes that these prehistoric sites are tribal cultural resources. In addition, as outlined in the archaeological research design and treatment plan, the Hub Plan area, along with areas for proposed streetscape work and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, is sensitive for prehistoric archaeological resources. Therefore, the potential exists for impacts on tribal cultural resources.

IMPACTS AND MITIGATION MEASURES

Impact TCR-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could result in a substantial adverse change in the significance of a tribal cultural resource. (Less than Significant with Mitigation)

CEQA section 21074.2 requires the lead agency to consider the effects of a project on tribal cultural resources. Based on the archaeological sensitivity assessment, there is the potential for prehistoric archaeological resources to be present in the Hub Plan area, including on the sites for the two individual development projects. As discussed above, prehistoric archaeological resources may also be considered tribal cultural resources. In the event that project activities associated with the Hub Plan, including streetscape and street network improvements, and the two individual development projects disturb unknown archaeological sites that are considered tribal cultural resources, any inadvertent damage would be considered a *significant* impact.

⁵⁵ ICF, *Archaeological Research Design and Treatment Plan for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District, San Francisco, California*, prepared for the San Francisco Planning Department, December 2018.

⁵⁶ Ibid.

MITIGATION MEASURES

M-TCR-1: *Project-Specific Tribal Cultural Resources Assessment for Projects Involving Ground Disturbance.* This tribal cultural resources cultural mitigation measure shall apply to any project involving any soils-disturbing or soils-improving activities, including excavation, utility installation, grading, soil remediation, or compaction/chemical grouting at depths that would extend into sand dune and marsh deposits, that occur at depths of 2 feet or more below the ground surface.

Projects to which this mitigation measure applies shall be reviewed for the potential to affect a tribal cultural resource in tandem with Preliminary Archaeological Review of the project by the San Francisco Planning Department senior archaeologist. For projects requiring a Mitigated Negative Declaration or Environmental Impact Report, the San Francisco Planning Department "Notification Regarding Tribal Cultural Resources and the California Environmental Quality Act" shall be distributed to the San Francisco Planning Department tribal distribution list. Consultation with California Native American tribes regarding the potential of the project to affect a tribal cultural resource shall occur at the request of any notified tribe. For all projects subject to this mitigation measure, if the San Francisco Planning Department senior archaeologist determines that the proposed project may have a potential significant adverse effect on a tribal cultural resources, then the following shall be required as determined warranted by the Environmental Review Officer.

If the Environmental Review Officer determines that preservation-in-place of the tribal cultural resource is both feasible and effective, based on information provided by the applicant regarding feasibility and other available information, then the project's archaeological consultant shall prepare an archaeological resource preservation plan. Implementation of the approved archaeological resource preservation plan by the archaeological consultant shall be required when feasible. If the Environmental Review Officer determines that preservation in place of the tribal cultural resource is not a sufficient or feasible option, then the project sponsor shall implement an interpretive program of the tribal cultural resource in coordination with affiliated Native American tribal representatives. An interpretive plan produced in coordination with affiliated Native American tribal representatives, at minimum, and approved by the Environmental Review Officer shall be required to guide the interpretive program. The plan shall identify proposed locations for installations or displays, the proposed content and materials of those displays or installation, the producers or artists of the displays or installation, and a long-term

maintenance program. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifact displays and interpretation, and educational panels or other informational displays.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure M-TCR-1, Project-Specific Tribal Cultural Resources Assessment for Projects Involving Ground Disturbance, would require subsequent development projects approved under the Hub Plan and the two individual development projects to be redesigned to avoid adverse effects on significant tribal cultural resource, if feasible. If preservation in place is not feasible, the measure would require implementation of an interpretative program for the tribal cultural resource, in consultation with affiliated tribal representatives. With implementation of this mitigation measure, the Hub Plan and the two individual development projects would have a less-than-significant impact on tribal cultural resources.

Impact C-TCR-1. The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable projects in the city, could result in a significant cumulative impact on tribal cultural resources. (Less than Significant with Mitigation)

The cumulative context for tribal cultural resources includes urban development projects and transportation and streetscape improvements occurring within and surrounding the Hub Plan area, which together could lead to ground-disturbing activities and could result in impacts to archaeological resources, which also have the potential to be tribal cultural resources. The past, present, and reasonably foreseeable future projects within and surrounding the Hub Plan area include numerous development projects that propose new buildings, which would range from five to 55 stories in height, as well as streetscape and street network improvements. These cumulative projects, in concert with the Hub Plan and two individual development projects, have the potential to alter tribal cultural resources through development of sites and associated excavation activities. The total cumulative impact is considered significant. The Hub Plan would result in ground-disturbing activities that will occur in areas identified as having moderate to high sensitivity for containing buried undocumented historical and prehistoric archaeological resources, the latter of which may also be tribal cultural resources. In addition, the proposed 30 Van Ness Avenue Project would result in excavation to a depth of 48 feet below grade within the boundaries of the entire lot, and the proposed 98 Franklin Street Project would result in excavation to a depth of 39 feet within the boundaries of the entire lot. These ground-disturbing activities would also occur in areas identified as having moderate to high sensitivity for containing buried undocumented historical and prehistoric archaeological resources, the latter of which may also be tribal cultural resources. Therefore, these ground-disturbing activities have the potential to affect undocumented tribal cultural resources. Without mitigation, the

Hub Plan and two individual development projects, when considered against the past, present, and reasonably foreseeable future projects within and surrounding the Hub Plan area that would include ground-disturbing activities that have the potential to encounter sediments that have moderate to high archaeological sensitivity, has the potential to contribute considerably to the overall cumulative impact on tribal cultural resources. This is because they have the potential to damage or destroy as-yet undocumented archaeological resources that have the potential to be eligible for listing in the California Register, and which may be considered of traditional importance to Native American tribes.

MITIGATION MEASURES

Implementation of Mitigation Measure M-TCR-1, Project-Specific Tribal Cultural Resources Assessment for Projects Involving Ground Disturbance, would reduce the cumulative impacts of the Hub Plan and individual development projects on potential tribal cultural resources to less-than-significant levels by providing mitigation for impacts on these resources.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

With implementation of mitigation measures, the contribution from the Hub Plan and individual development projects on tribal cultural resources would be reduced to a less-than-considerable level. The impact is *less than significant with mitigation*.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
6. TRANSPORTATION AND CIRCULATION.					
Would the project:					
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Any of the project’s components, including the Hub Plan, the two individual development projects, and the Hub HSD, would have the potential to result in significant impacts on transportation and circulation. Accordingly, this topic is further analyzed and included in the EIR.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
7. NOISE. Would the project:					
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive ground-borne vibration or ground-borne noise levels?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan area or, where such a plan has not been adopted, an area within 2 miles of a public airport or public use airport, expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Hub Plan area, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD are not within an airport land use plan area, nor are they in the vicinity of a private airstrip. The nearest airport land use plan area and private airstrip is San Francisco International Airport, approximately 10 miles away. Therefore, topic 7c is not applicable to any of the project’s components and not addressed further in the EIR. With respect to the other questions, any of the project’s components, including the Hub Plan, the two individual development projects, and the Hub HSD, would have the potential to result in significant noise impacts. Accordingly, this topic, with the exception of aircraft noise, is further analyzed and included in the EIR.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
8. AIR QUALITY. Would the project:					
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment status under an applicable federal, state, or regional ambient air quality standard?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Implementation of any of the project’s components, including the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, would have the potential to result in significant impacts on air quality. Accordingly, this topic is further analyzed and included in the EIR.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
9. GREENHOUSE GAS EMISSIONS. Would the project:					
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

Gases that trap heat in the atmosphere are referred to as GHGs because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs contributes to global climate change. The primary GHGs, or climate pollutants, are carbon dioxide (CO₂), black carbon, methane (CH₄), nitrous oxide (N₂O), ozone, and water vapor.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during demolition, construction, and operational phases. Although the presence of some of the primary GHGs in the atmosphere is naturally occurring, CO₂, CH₄, and N₂O are also emitted from human activities, accelerating the rate at which these compounds occur within Earth’s atmosphere. Emissions of CO₂ are largely by-products of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. Black carbon has emerged as a major contributor to global climate change, possibly second only to CO₂. Black carbon is produced naturally and by human activities as a result of the incomplete combustion of fossil fuels, biofuels, and biomass.⁵⁷ N₂O is a by-product of various industrial processes. Other GHGs, including hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, are generated in certain industrial processes. GHGs are typically reported in “carbon-dioxide-equivalent” measures.⁵⁸

There is international scientific consensus that human-caused increases in GHGs contribute to global warming and, thus, climate change. Many impacts resulting from climate change, including sea-level rise (SLR), increased fires, floods, severe storms, and heat waves, already

⁵⁷ Center for Climate and Energy Solutions, *What is Black Carbon?* April 2010, <https://www.c2es.org/site/assets/uploads/2010/04/what-is-black-carbon.pdf>, accessed February 22, 2018.

⁵⁸ Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average, based on each gas’s heat absorption (or “global warming”) potential.

occur and will only become more severe and costly.⁵⁹ Secondary effects of climate change very likely include impacts on agriculture, the state’s electricity system, and native freshwater fish ecosystems; an increase in the vulnerability of levees, such as in the Sacramento-San Joaquin Delta; changes in disease vectors; and changes in habitats and biodiversity.^{60,61}

GREENHOUSE GAS EMISSION ESTIMATES AND ENERGY PROVIDERS IN CALIFORNIA

The California Air Resources Board (air board) estimated that, in 2016, California produced about 429 million gross metric tons of carbon dioxide equivalents.⁶² The air board found that transportation is the source of 41 percent of the state’s GHG emissions, followed by industrial uses, at 23 percent, and electricity generation (both in-state and imported electricity), at 16 percent. Commercial and residential fuel use (primarily for heating) accounted for 12 percent of GHG emissions.⁶³ In San Francisco, motorized transportation and buildings (including natural gas and electricity use) were the two largest sources of GHG emissions, accounting for approximately 45 percent (1.98 million metric tons of carbon dioxide equivalents) and 46 percent (2.04 million metric tons of carbon dioxide equivalents), respectively, of San Francisco’s 4.4 million metric tons of carbon dioxide equivalents emitted in 2016.⁶⁴ Other sources include landfilled organics (6.6 percent) and municipal emissions (2.7 percent, including both municipal buildings and fleets).⁶⁵

Electricity in San Francisco is provided primarily by Pacific Gas & Electric and the San Francisco Public Utilities Commission. In 2015, electricity consumption in San Francisco was approximately 5.8 million megawatt-hours. Of this total, Pacific Gas & Electric produced approximately 84 percent

⁵⁹ Intergovernmental Panel on Climate Change, *Climate Change 2013: The Physical Science Basis, Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, 2013, https://www.ipcc.ch/site/assets/uploads/2018/02/WG1AR5_all_final.pdf, accessed April 24, 2019.

⁶⁰ Ibid.

⁶¹ California Climate Change Center, *Our Changing Climate 2012: Vulnerability and Adaptation to the Increasing Risks from Climate Change in California*, 2012, <http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf>, accessed February 22, 2018.

⁶² California Air Resources Board, *California Greenhouse Gas Inventory for 2000–2016 by Category as Defined in the Scoping Plan*, <https://www.arb.ca.gov/cc/inventory/data/data.htm>, accessed July 19, 2018.

⁶³ California Air Resources Board, *California Greenhouse Gas Inventory for 2000–2010 by Category, as Defined in the Scoping Plan*, 2013, http://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2010/ghg_inventory_scopingplan_00-10_2013-02-19.pdf, accessed April 24, 2019.

⁶⁴ San Francisco Department of the Environment, *Community GHG Inventory, 1990–2016*, <https://sfenvironment.org/carbon-footprint>, accessed July 19, 2018.

⁶⁵ San Francisco Department of the Environment, *Community GHG Inventory, 1990–2012*.

of electricity distributed (4.9 million megawatt-hours;) and the San Francisco Public Utilities Commission produced approximately 16 percent of electricity distributed (0.9 million megawatt-hour; 0 percent of San Francisco’s electricity-driven GHG emissions).

Pacific Gas & Electric’s 2016 power mix was as follows: 17 percent natural gas, 24 percent nuclear, 33 percent eligible renewables (described below), 12 percent large hydroelectric, and 14 percent unspecified power.⁶⁶

The San Francisco Public Utilities Commission, which operates four hydroelectric power plants in association with San Francisco’s Hetch Hetchy water supply system as well as solar energy, biomass, and biowaste infrastructure, provides electrical power to Muni, City buildings, and a limited number of other commercial accounts in San Francisco. Electricity generated by the Hetch Hetchy system achieved net-zero GHG emissions in 2015.⁶⁷

REGULATORY SETTING

STATE

Executive Orders S-3-05, B-30-15, and B-55-18. Executive Order S-3-05⁶⁸ sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: reduce emissions to 1990 levels by 2020 (approximately 427 million metric tons of carbon dioxide equivalents) and 80 percent below 1990 levels by 2050 (approximately 85 million metric tons of carbon dioxide equivalents). California produced about 429 million metric tons of carbon dioxide equivalents in 2016.⁶⁹

⁶⁶ Pacific Gas & Electric, *PG&E’s Power Mix. Understanding our Clean Energy Solutions*, https://www.pge.com/pge_global/local/assets/data/en-us/your-account/your-bill/understand-your-bill/bill-inserts/2017/november/power-content.pdf, accessed July 23, 2018.

⁶⁷ San Francisco Department of the Environment, *Community GHG Inventory, 1990-2015*, <https://sfenvironment.org/carbon-footprint>, accessed September 13, 2017.

⁶⁸ Office of the Governor, *Executive Order S-3-05*, June 1, 2005. [http://static1.squarespace.com/static/549885d4e4b0ba0b0b5dc695/t/54d7f1e0e4b0f0798cee3010/1423438304744/California+Executive+Order+S-3-05+\(June+2005\).pdf](http://static1.squarespace.com/static/549885d4e4b0ba0b0b5dc695/t/54d7f1e0e4b0f0798cee3010/1423438304744/California+Executive+Order+S-3-05+(June+2005).pdf), accessed April 24, 2019. Executive Order S-3-05 sets forth a series of target dates by which statewide emissions of GHGs need to be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 million metric tons of carbon dioxide equivalents); by 2020, reduce emissions to 1990 levels (approximately 427 million metric tons of carbon dioxide equivalents); and by 2050 reduce emissions to 80 percent below 1990 levels (approximately 85 million metric tons of carbon dioxide equivalents). Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential.

⁶⁹ California Air Resources Board, *California Greenhouse Gas Inventory for 2000-2016 by Category as Defined in the Scoping Plan*, <https://www.arb.ca.gov/cc/inventory/data/data.htm>, accessed April 24, 2019.

Executive Order B-30-15 set an interim statewide GHG reduction target of 40 percent below 1990 levels to be achieved by 2030. The purpose of this interim target is to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050.⁷⁰ Executive Order B-30-15 also requires all state agencies with jurisdiction over sources of GHG emissions to implement measures within their statutory authority to achieve reductions in GHG emissions to meet the 2030 and 2050 GHG emission reductions targets.

Executive Order B-55-18 established a statewide goal of achieving carbon neutrality as soon as possible, but no later than 2045, and achieving and maintaining net negative emissions thereafter. The air board was tasked with developing a framework to implement and account for progress toward the goal. Executive Order B-55-18 also requires that all policies and programs undertaken to achieve carbon neutrality be implemented in a manner that supports climate adaptation and biodiversity.⁷¹

Assembly Bill 32 and California Climate Change Scoping Plan. In 2006, the California legislature passed Assembly Bill 32 (California Health and Safety Code division 25.5, sections 38500, et seq.), also known as the California Global Warming Solutions Act. Assembly Bill 32 requires the air board to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020.

Pursuant to Assembly Bill 32, the air board adopted the 2008 Climate Change Scoping Plan, which outlines measures to meet the 2020 GHG reduction limits. In order to meet the goals of Assembly Bill 32, California must reduce its GHG emissions by 30 percent below projected 2020 business-as-usual emissions levels (approximately 15 percent below 2008 levels).⁷² The plan estimates a reduction of 174 million metric tons of carbon dioxide equivalents from transportation, energy, agriculture, forestry, and other high global warming sectors (see **Table E.9-1**).⁷³

⁷⁰ Office of the Governor, *Executive Order B-30-15*, April 29, 2015, <https://www.ca.gov/archive/gov39/2015/04/29/news18938/index.html>, accessed April 26, 2019.

⁷¹ Office of the Governor, *Executive Order B-55-18*, September 10, 2018, <https://www.gov.ca.gov/wp-content/uploads/2018/09/9.10.18-Executive-Order.pdf>, accessed September 27, 2018.

⁷² California Air Resources Board, *California's Climate Plan: Fact Sheet*, http://www.arb.ca.gov/cc/facts/scoping_plan_fs.pdf, accessed April 24, 2019.

⁷³ Ibid.

Table E.9-1. GHG Reductions from the Assembly Bill 32 Scoping Plan Categories⁷⁴

Scoping Plan Category	GHG Reductions (million metric tons of carbon dioxide equivalents)
Transportation	62.3
Electricity and Natural Gas	49.7
Industry	1.4
Landfill Methane Control	1
Forestry	5
High Global Warming Potential GHGs	20.2
Additional Reductions Needed to Achieve the GHG Cap	34.4
Other Recommended Measures	
Government Operations	1–2
Agriculture – Methane Capture at Large Dairies	1
Water	4.8
Green Buildings	26
Recycling/Zero Waste	9
Total Reductions Counted Toward 2020 Target	216.8–217.8

California Air Resources Board, *Climate Change Scoping Plan*, December 2008,
http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf, accessed April 26, 2019.

The plan also anticipates that actions by local governments will result in reduced GHG emissions because local governments have the primary authority to plan, zone, approve, and permit development to accommodate population growth and the changing needs of their jurisdictions.⁷⁵ The plan also relies on the requirements of Senate Bill 375 (discussed below) to align local land use and transportation planning to achieve GHG reductions.

The plan must be updated every 5 years to evaluate Assembly Bill 32 policies and ensure that California is on track with respect to achieving long-term climate stabilization goals. In 2017, the air board released an updated Climate Change Scoping Plan, which builds upon the First Update to the Climate Change Scoping Plan from 2014 with new strategies and recommendations. The plan identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low-carbon investments. This update defines the air board's climate change priorities for the next 5 years

⁷⁴ California Air Resources Board, *Climate Change Scoping Plan*, December 2008,
http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf, accessed April 26, 2019.

⁷⁵ Ibid.

and sets the groundwork to reach long-term goals set forth in Executive Order B-30-15 and Senate Bill 32. The plan highlights California's progress toward meeting the 2030 GHG emission reduction goals of Senate Bill 32. It also evaluates how to align the state's longer-term GHG reduction strategies with other state policy priorities for water, waste, natural resources, clean energy, transportation, and land use.⁷⁶

Senate Bill 32 and Assembly Bill 197. On August 24, 2016, the California legislature passed Senate Bill 32 (California Health and Safety Code division 25.5, section 38566), amending the California Global Warming Solutions Act of 2006. Senate Bill 32 directs the air board to adopt, to the extent technologically feasible and cost-effective, any rules and regulations necessary to achieve a reduction in statewide GHG emissions of 40 percent below 1990 levels by 2030. The passage of Senate Bill 32 codifies the 2030 interim GHG emission reduction target established by Executive Order B-30-15.

Senate Bill 32 was paired with Assembly Bill 197 (California Government Code division 2 of title 2, article 7.6 of chapter 1.5, California Health and Safety Code section 39510, 39607, 38506, 38531, and 38562.5). Assembly Bill 197 provides additional guidance on how to achieve the reduction targets established in Executive Order B-30-15 and Senate Bill 32. Senate Bill 32 and Assembly Bill 197 became effective January 1, 2017.

Senate Bill 375. The 2008 Climate Change Scoping Plan also relies on the requirements of Senate Bill 375 (chapter 728, statutes of 2008), also known as the Sustainable Communities and Climate Protection Act of 2008, to reduce carbon emissions from land use decisions. Senate Bill 375 requires regional transportation plans developed by each of the state's 18 metropolitan planning organizations to incorporate a *sustainable communities strategy* in each regional transportation plan, which will then achieve GHG emission reduction targets set by the air board. For the Bay Area, the per-capita GHG emission reduction target is a 7 percent reduction by 2020 and a 15 percent reduction by 2035 in GHG emissions from vehicles and light-duty trucks compared with 2005 levels.⁷⁷ Plan Bay Area, the Metropolitan Transportation Commission's regional transportation plan, adopted in July 2017, provides a strategy for accommodating household and employment growth in the Bay Area as well as meeting the GHG reduction targets for passenger vehicles to comply with Senate Bill 375.⁷⁸

⁷⁶ California Air Resources Board, *California's 2017 Climate Change Scoping Plan*, January 2017, https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf, accessed July 23, 2017.

⁷⁷ California Air Resources Board, *Executive Order No. G-11-024, Relating to Adoption of Regional Greenhouse Gas Emission Reduction Targets for Automobiles and Light Trucks Pursuant to Senate Bill 375*, February 2011, http://www.arb.ca.gov/cc/sb375/executive_order_g11024.pdf, accessed April 24, 2019.

⁷⁸ Association of Bay Area Governments and Metropolitan Transportation Commission, *Plan Bay Area 2040*, adopted: July 26, 2017, http://2040.planbayarea.org/cdn/fff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgrSgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf, accessed February 22, 2018.

Senate Bills 1078, 107, X1-2,350, and 100 and Executive Orders S-14-08 and S-21-09.

California established aggressive renewable portfolio standards under Senate Bill 1078 (chapter 516, statutes of 2002) and Senate Bill 107 (chapter 464, statutes of 2006), which require retail sellers of electricity to provide at least 20 percent of their electricity supply from renewable sources by 2010. Executive Order S-14-08 (November 2008) expanded the state's renewable portfolio standard, which calls for 20 to 33 percent of electricity to come from renewable sources by 2020. In 2009, Governor Schwarzenegger continued California's commitment to the renewable portfolio standard by signing Executive Order S-21-09, which directed the air board to enact regulations to help California meet the renewable portfolio standard goal of 33 percent renewable energy by 2020.⁷⁹

In April 2011, Governor Brown signed Senate Bill X1-2 (chapter 1, statutes of 2011) codifying the GHG reduction goal of 33 percent by 2020 for energy suppliers. This renewable portfolio standard preempts the air board's 33 percent renewable sources electricity standard and applies to all electricity suppliers (not only retail sellers) in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. Under Senate Bill X1-2, all of these entities must adopt the new renewable portfolio standard goals of 20 percent of retail sales from renewable sources by the end of 2013, 25 percent by the end of 2016, and 33 percent by the end of 2020.⁸⁰ Eligible renewable sources include geothermal, ocean wave, solar photovoltaic, and wind but exclude large hydroelectric (30 megawatts or more). Therefore, because the San Francisco Public Utilities Commission receives more than 67 percent of its electricity from large hydroelectric facilities, the remaining electricity provided by the San Francisco Public Utilities Commission is required to be 100 percent renewable.⁸¹ Senate Bill 350 (chapter 547, statutes of 2015), signed by Governor Brown in October 2015, dramatically increased the stringency of the renewable portfolio standard. Senate Bill 350 establishes a renewable portfolio standard target of 50 percent by 2030, along with interim targets of 40 percent by 2024 and 45 percent by 2027.

Senate Bill 100 further accelerates renewable energy targets set by earlier legislation. The goal of the renewable portfolio standard was revised to achieve a 50 percent renewable resource target by the end of 2026 and 60 percent target by the end of 2030. The bill states that it is the

⁷⁹ California Public Utilities Commission, *RPS Program Overview*, June 2015, http://www.cpuc.ca.gov/RPS_Overview/, accessed April 24, 2019.

⁸⁰ Ibid.

⁸¹ San Francisco Public Utilities Commission, *Approval of the Enforcement Program for the California Renewable Energy Resources Act*, December 13, 2011, https://ww2.energy.ca.gov/portfolio/rps_pou_reports.html, accessed April 24, 2019.

policy of the state that eligible renewable energy resources and zero-carbon resource supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to supply all state agencies by the end of 2045.⁸²

REGIONAL

The air district is responsible for attaining and maintaining federal and state air quality standards in the San Francisco Bay Area Air Basin, as established by the federal Clean Air Act and the California Clean Air Act, respectively. The acts require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the *Bay Area 2017 Clean Air Plan*, includes a goal of reducing GHG emissions to 1990 levels by 2020, 40 percent below 1990 levels by 2035, and 80 percent below 1990 levels by 2050.⁸³

In addition, the air district established a climate protection program to reduce pollutants that contribute to global climate change and affect air quality in the air basin; the program includes GHG-reduction measures that promote energy efficiency, reduce vehicle miles traveled, and develop alternative energy sources.⁸⁴

The air district's CEQA Air Quality Guidelines also assist lead agencies in complying with the requirements of CEQA regarding potentially adverse impacts on air quality. The air district advises lead agencies to consider adopting a GHG reduction strategy that meets climate stabilization goals and then reviewing projects for compliance with the GHG reduction strategy as a CEQA threshold of significance.⁸⁵ This is consistent with the approach to analyzing GHG emissions described in CEQA Guidelines section 15183.5.

LOCAL

San Francisco Greenhouse Gas Reduction Ordinance. In May 2008, the City adopted Ordinance No. 81-08, amending the San Francisco Environment Code to establish GHG emissions targets and require departmental action plans and authorize the San Francisco Department of the Environment to coordinate efforts to meet these targets. The City ordinance establishes the following GHG emission reduction limits and target dates by which to achieve

⁸² Senator Kevin De Leon, *Senate Bill No. 100: California Renewable Portfolio Standards Program: Emissions of Greenhouse Gases*. September 10, 2018, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201720180SB100, accessed September 27, 2018.

⁸³ Bay Area Air Quality Management District, *2017 Clean Air Plan*, April 2017, <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>, accessed July 24, 2017.

⁸⁴ Bay Area Air Quality Management District, *Climate Protection Program*, <http://www.baaqmd.gov/plans-and-climate/climate-protection/climate-protection-program>, accessed April 24, 2019.

⁸⁵ Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines*, May 2017, http://www.baaqmd.gov/~media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en, accessed January 7, 2019.

them: determine 1990 citywide GHG emissions by 2008, the baseline level, with reference to which target reductions are set; reduce GHG emissions by 25 percent below 1990 levels by 2017; reduce GHG emissions by 40 percent below 1990 levels by 2025; and reduce GHG emissions by 80 percent below 1990 levels by 2050.⁸⁶ The City's GHG reduction targets are consistent with—in fact, are more ambitious than—those set forth in Governor Brown's Executive Order B-30-15 by targeting a 40 percent reduction in GHGs by 2025 rather than a 40 percent reduction by 2030.

San Francisco Greenhouse Gas Reduction Strategy. San Francisco has developed many plans and programs to reduce the city's contribution to global climate change and meet the goals of the Greenhouse Gas Reduction Ordinance. San Francisco's *Strategies to Address Greenhouse Gas Emissions*⁸⁷ documents the City's actions to pursue cleaner energy, reduce energy consumption, support alternative transportation, and implement solid waste policies. For instance, the City has implemented mandatory requirements and incentives that have measurably reduced GHG emissions, including, but not limited to, increased energy efficiency in new and existing buildings, the installation of solar panels on building roofs, implementation of a green building strategy, implementation of a transportation sustainability program, implementation of a better roofs program, adoption of a zero-waste strategy, adoption of a construction and demolition debris recovery ordinance, creation of a solar energy generation subsidy, incorporation of alternative-fuel vehicles in the City's transportation fleet (including buses), and adoption of a mandatory recycling and composting ordinance. The strategy also includes 31 specific regulations for new development, which would reduce the project's GHG emissions. These GHG reduction actions resulted in a 30 percent reduction in GHG emissions in 2016 compared with 1990 levels,⁸⁸ exceeding the 2020 reduction goals in the air district's 2017 Clean Air Plan, Executive Orders S-3-05 and B-30-15, Assembly Bill 32, and the City's 2017 GHG reduction goal.

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown

⁸⁶ City and County of San Francisco, *Greenhouse Gas Emissions Targets and Departmental Action Plans*, May 13, 2008, [http://library.amlegal.com/nxt/gateway.dll/California/environment/chapter9greenhousegasemissionstargetsand?f=templates\\$fn=default.htm\\$3.0\\$vid=amlegal:sanfrancisco_ca\\$anc=JD_Chapter9](http://library.amlegal.com/nxt/gateway.dll/California/environment/chapter9greenhousegasemissionstargetsand?f=templates$fn=default.htm$3.0$vid=amlegal:sanfrancisco_ca$anc=JD_Chapter9), accessed April 24, 2019.

⁸⁷ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, July 2017, <https://sfplanning.org/project/greenhouse-gas-reduction-strategies>, accessed April 24, 2019.

⁸⁸ San Francisco Department of the Environment, *San Francisco's Carbon Footprint*, <https://sfenvironment.org/carbon-footprint>, accessed September 27, 2018.

Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Although the Hub Plan and Hub HSD would not result in immediate physical changes to the environment, subsequent development projects allowed under the Hub Plan and Hub HSD could result in changes in GHG emissions in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area and could contribute to cumulatively significant GHG emissions.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

CEQA Guidelines section 15064.4 calls for a “good-faith effort” to “describe, calculate or estimate” GHG emissions. In accordance with section 15064.4, the significance of GHG impacts should include consideration of the extent to which the Hub Plan and the two individual projects would increase or reduce GHG emissions, exceed a locally applicable threshold of significance, and comply with “regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.” The CEQA Guidelines also state that a project may be found to have a less-than-significant impact if it complies with an adopted plan that includes specific measures to sufficiently reduce GHG emissions (section 15064(h)(3)).

With respect to GHG emissions, the impacts of the Hub Plan and the two individual development projects are based on compliance with local, regional, and state plans, policies, and regulations adopted for the purpose of reducing the cumulative impacts of climate change. GHG emissions are analyzed in the context of their contribution to the cumulative effects of climate change because a single land use project could never generate enough GHG emissions to noticeably change the global average temperature. As discussed above, the Assembly Bill 32 Scoping Plan is the state’s overarching plan for addressing climate change. The Assembly Bill

32 Scoping Plan recommendations are intended to curb projected business-as-usual growth in GHG emissions and reduce those emissions to 1990 levels. Therefore, meeting Assembly Bill 32 GHG emission reduction goals would result in an overall annual net decrease in GHG emissions compared with current levels and account for projected increases in emissions resulting from anticipated growth.

A third transportation, land use, and GHG emission reduction plan that would be applicable to the Hub Plan and the two individual development projects is Plan Bay Area. This regional plan sets forth a forecast development pattern for the region that concentrates growth in walkable communities along the region's extensive transit network, provides incentives for clean vehicles and smart driving, and directs investment into operating and maintaining, rather than expanding, the region's current transportation network. With implementation of these strategies, by 2035, per capita GHG emissions from transportation are projected to decline by 16 percent from today, exceeding the region's target of 15 percent.

In summary, the three applicable GHG reduction plans, the Assembly Bill 32 Scoping Plan, Plan Bay Area, and the San Francisco Greenhouse Gas Reduction Strategy, are intended to reduce GHG emissions to levels below current levels. Given that the City's local GHG emission reduction targets are more aggressive than the state's 2020 GHG emission reduction targets, and consistent with the long-term 2050 reduction targets, the San Francisco Greenhouse Gas Reduction Strategy is consistent with the goals of Assembly Bill 32. Therefore, projects that are consistent with the San Francisco Greenhouse Gas Reduction Strategy would be consistent with the goals of Assembly Bill 32 and would not conflict with either plan or generate GHG emissions that would make a considerable contribution to global climate change. This analysis also considers the Hub Plan's and the two individual development projects' consistency with the primary goals of Plan Bay Area, which are expected to reduce GHG emissions from the land use section by 16 percent by 2035. As such, the analysis of a project's impact with respect to GHG emissions is based on compliance with the San Francisco Greenhouse Gas Reduction Strategy and, for this analysis, with Plan Bay Area as well.

The air district has prepared guidelines and methodologies for analyzing GHGs. These guidelines are consistent with CEQA Guidelines sections 15064.4 and 15183.5, which address the analysis and determination of significant impacts from a proposed project's GHG emissions. CEQA Guidelines section 15064.4 allows lead agencies to rely on a qualitative analysis to describe GHG emissions resulting from a project. CEQA Guidelines section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHG and describes the required contents of such a plan. Accordingly, the City has prepared its own GHG reduction strategy (described above), which the air district has reviewed and concluded that "aggressive GHG reduction targets and comprehensive strategies like San Francisco's help the Bay Area move toward reaching the state's Assembly Bill 32 goals, and also serve as a model from which other communities can learn."

In addition to considering the Hub Plan, the following analysis also considers the impact on climate change from each of the two individual development projects and focuses on the projects' contribution to cumulatively significant GHG emissions. Because no individual project could emit GHGs at a level that could result in a significant impact on the global climate, this analysis is in a cumulative context; this section does not include an individual project-specific impact statement.

IMPACTS AND MITIGATION MEASURES

Impact C-GG-1: The Hub Plan would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

With the exception of streetscape and street network improvements (which are discussed further below), adoption and implementation of the Hub Plan would not immediately result in GHG emissions. However, subsequent development projects in the Hub Plan area resulting from its implementation would result in GHG emissions. Direct operational emissions include GHG emissions from new vehicle trips and area sources (e.g., natural gas combustion). Indirect emissions include emissions from electricity providers; emissions associated with the energy required to pump, treat, and convey water; emissions associated with waste removal and disposal as well as landfill operations; and construction-related GHGs.

The proposed Hub Plan is, in substantial part, being proposed as a response to the Bay Area's regional GHG reduction strategy. As mentioned above, Senate Bill 375 required each metropolitan region in the state to prepare a Sustainable Communities Strategy to reduce GHGs by linking growth and transportation planning. The Association of Bay Area Governments and Metropolitan Transportation Commission adopted Plan Bay Area, the region's Sustainable Communities Strategy and regional transportation plan, in July 2013. The Association of Bay Area Governments' 2013 projections anticipate that city and county of San Francisco will add, between 2010 and 2040, approximately 101,539 housing units, and nearly 191,000 additional jobs.⁸⁹ Although the City has adopted plans in recent years to accommodate much of the anticipated new housing units, there is still a housing shortage. Accordingly, the Hub Plan seeks to accommodate growth, in particular residential growth, in proximity to local and regional transit. **Table E.9-2** describes goals from the Market and Octavia Area Plan related to reducing potential GHG emissions by concentrating growth near transit, discouraging the use of single-occupancy vehicles for commuter travel, encouraging alternative forms of travel, and maintaining the area's vibrant economic and physical diversity. Thus, the Hub Plan represents a key step in San Francisco's approach to

⁸⁹ Association of Bay Area Governments, *Projections 2013*, December 2013.

implementation of the GHG reduction policies set forth in both Assembly Bill 32 and Senate Bill 375. The Hub Plan also represents a key step in San Francisco’s ability to accommodate housing growth projected by Plan Bay Area as well as the manner in which that growth occurs as infill development in transit-rich neighborhoods. This manner of development, encouraged through Hub Plan policies, is consistent with the Plan Bay Area’s goals of reducing GHG emissions by 16 percent by 2035.

TABLE E.9-2. GOALS, POLICIES, AND STRATEGIES FROM THE MARKET AND OCTAVIA AREA PLAN THAT COULD AFFECT EMISSIONS OF GREENHOUSE GAS

Goal, Policy, or Strategy	Potential Effect on Greenhouse Gas Emissions
Policy 1.1.2 Concentrate more intense uses and activities in those areas best served by transit and most accessible on foot.	By accommodating a share of regional growth in an area with good transit access, the Hub Plan would result in lesser GHG emissions than would a comparable degree of development elsewhere in the region with less transit access. As noted above, these goals will contribute to Plan Bay Area’s target of reducing GHG emissions from transportation by 16.4 percent by 2035.
Policy 2.2.1 Eliminate housing density maximums close to transit and services.	
Policy 2.2.6 Where possible, simplify zoning and planning controls to expedite the production of housing.	
Policy 4.1.1 Widen sidewalks and shorten pedestrian crossings with corner plazas and boldly marked crosswalks where possible without affecting traffic lanes. Where such improvements may reduce lanes, the improvements should first be studied.	The Hub Plan seeks to reduce reliance on personal vehicle travel and increase the attractiveness and convenience of alternative means of travel, such as transit, bicycling, and walking. To the extent that the Hub Plan achieves a decrease in personal vehicle travel and an increase in travel by alternative, non-auto means, the Hub Plan would decrease vehicle miles traveled and vehicle emissions, including those of GHGs.
Policy 4.1.2 Enhance the pedestrian environment by planting trees along sidewalks, closely planted between pedestrians and vehicles.	
Objective 5.1 Improve public transit to make it more reliable, attractive, convenient, and responsive to increasing demand.	
Policy 5.1.1 Implement transit improvements on streets designated as “Transit Preferential Streets” in this plan.	
Policy 5.1.3 Establish a Market Octavia neighborhood improvement fund to subsidize transit, pedestrian, bicycle, and other priority improvements in the area.	
Policy 5.1.4 Support innovative transit solutions that improve service, reliability, and overall quality of the transit rider’s experience.	
Objective 5.2 Develop and implement parking policies for areas well served by public transit that encourage travel by public transit and alternative	

TABLE E.9-2. GOALS, POLICIES, AND STRATEGIES FROM THE MARKET AND OCTAVIA AREA PLAN THAT COULD AFFECT EMISSIONS OF GREENHOUSE GAS

Goal, Policy, or Strategy	Potential Effect on Greenhouse Gas Emissions
transportation modes and reduce traffic congestion.	
Policy 5.2.4 Support the choice to live without a car.	
Objective 5.5 Establish a bicycle network that provides a safe and attractive alternative to driving for both local and citywide travel needs.	
Policy 5.5.1 Improve bicycle connections, accessibility, safety, and convenience throughout the neighborhood, concentrating on streets most safely and easily traveled by bicyclists.	
Objective 5.6 Improve vehicular circulation through the area.	
Objective 7.2 Establish a functional, attractive, and well-integrated system of public streets and open spaces in the SoMa West area to improve the public realm.	
Policy 7.2.1 Study a redesign of South Van Ness Avenue from Mission Street to Division Street as a surface boulevard serving regional as well as local traffic.	
Policy 7.2.2 Embark on a study to redesign Mission and Otis Streets from South Van Ness Avenue to Duboce Avenue.	
Policy 7.2.3 Redesign Gough Street between Otis and Market Streets with widened sidewalks and a community gathering space or garden at the northeastern side of the Gough, Otis and McCoppin Streets intersection.	
Policy 7.2.4 Redesign McCoppin Street as a linear green street with a new open space west of Valencia Street.	
Policy 7.2.5 Make pedestrian improvements within the block bounded by Market, Twelfth, Otis, and Gough Streets and redesign Twelfth Street between Market and Mission Streets, creating a new park and street spaces for public use, and new housing opportunities.	
Policy 7.2.6 Embark on a study to redesign 12 th Street between Market and Mission to recapture space for pedestrian use.	

TABLE E.9-2. GOALS, POLICIES, AND STRATEGIES FROM THE MARKET AND OCTAVIA AREA PLAN THAT COULD AFFECT EMISSIONS OF GREENHOUSE GAS

Goal, Policy, or Strategy	Potential Effect on Greenhouse Gas Emissions
<p>Policy 7.2.7 Embark on a study to reconfigure major intersections to make them safer for vehicles and pedestrians alike, to facilitate traffic movement, and to take advantage of opportunities to create public spaces.</p>	
<p>Source: San Francisco Planning Department, <i>Market and Octavia Area Plan</i>, 2010, http://default.sfplanning.org/Citywide/Market_Octavia/Market_and_Octavia_Area_Plan_2010.pdf, accessed January 16, 2019.</p>	

The Hub Plan would incentivize increased intensity of use. The increase in the number of users of the Hub Plan area would very likely increase foot, bicycle, and vehicular traffic as well as overall energy and water usage. Therefore, future projects resulting from implementation of the proposed Hub Plan would contribute to annual long-term increases in GHG emissions as a result of increased vehicle trips (mobile sources) and residential and commercial operations that result in an increase in energy use, water use, wastewater treatment, and solid waste disposal.

As described above, the Hub Plan would result in a *less-than-significant* impact with respect to GHG emissions.

Mitigation: None required.

Impact C-GG-2: The Hub Plan’s streetscape and street network improvements and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would generate GHG emissions but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

STREETSCAPE AND STREET NETWORK IMPROVEMENTS

Construction of the Hub Plan’s streetscape and street network improvements would result in GHG emissions. The proposed streetscape and street network changes would not have any direct impacts on operational (e.g., traffic- or building-related) GHGs because implementation of the proposed streetscape and street network changes would also not result in substantial increase in automobile travel as demonstrated in Section 3.B, Transportation and Circulation, in the Draft EIR. In fact, the proposed street network changes would further the goals of the applicable GHG reduction plans, such as the Bay Area 2017 Clean Air Plan and the San Francisco Greenhouse Gas Reduction Ordinance, by promoting alternative modes of transportation through improved walking and bicycling environments and reducing the impact from vehicular traffic on transit performance.

Proposed streetscape and street network changes could result in a temporary increase in GHG emissions during construction of individual streetscape and street improvements. The use of construction equipment to make the physical improvements required for the proposed streetscape and street network changes (e.g., mid-block crossings, wider sidewalks, new pavement) would result in a temporary increase in GHG emissions. GHGs would also be emitted from vehicles delivering supplies to construction sites and construction workers' vehicles. In addition, some construction activities would require demolition of portions of the street or sidewalk, resulting in an increase in GHGs related to landfill transport. However, construction activities in connection with the proposed streetscape and street network changes would be relatively small, typically involving a limited area, a limited range of heavy equipment, and a limited number of workers. Moreover, City construction projects are subject to the Clean Construction Ordinance (section 6.25 of the San Francisco Administrative Code), which requires the use of relatively cleaner diesel engines or emission controls; typically, cleaner engines are newer and more efficient than older ones, resulting in the added benefit of reduced GHG emissions during construction.

Given the City's existing GHG reduction strategy and other regulations to reduce GHG emissions from municipal projects, its success in reducing GHG emissions, the likelihood that state and local GHG reduction measures will continue to reduce the contribution of projects to climate change, and the relatively minor scale of the proposed streetscape and street network changes, the improvements would result in a *less-than-significant* impact with respect to GHG emissions.

INDIVIDUAL DEVELOPMENT PROJECTS

Construction and operation of the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in GHG emissions. The two development individual projects would contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during the construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (e.g., natural gas combustion). Indirect emissions include emissions from electricity providers; emissions associated with the energy required to pump, treat, and convey water; and emissions associated with waste removal and disposal as well as landfill operations.

The two proposed individual development projects would increase the intensity of energy use in the project area by adding residential, office, commercial, retail, and educational uses as well as open spaces. These would contribute to annual long-term increases in GHG emissions as a result of additional vehicle trips (mobile sources) and residential and commercial operations that increase energy use, water use, wastewater treatment, and solid waste disposal. Construction activities associated with the two individual development projects and the streetscape and street network improvements would also result in temporary increases in GHG emissions.

The two individual development projects would be subject to regulations adopted to reduce GHG emissions, as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce GHG emissions related to transportation, energy use, waste disposal, wood burning, and refrigerants associated with future development.

Compliance with the City's Commuter Benefits Program, Emergency Ride-Home Program, and Jobs-Housing Linkage Program, as well as transportation management programs, the transportation sustainability fee, and bicycle parking, low-emission vehicular parking, and car-sharing requirements, would reduce transportation-related emissions from the individual projects. These regulations would reduce GHG emissions from single-occupancy vehicles by promoting the use of alternative transportation modes with zero or lower GHG emissions on a per capita basis.

The two development projects would be required to comply with the energy efficiency requirements of the City's Green Building Code, Water Conservation Ordinance, Irrigation Ordinance, and Residential Energy Conservation Ordinance, which promote energy and water efficiency, thereby reducing energy-related GHG emissions from all projects.⁹⁰ In addition, the two individual development projects would be required to meet the renewable energy criteria of the Green Building Code, thereby further reducing project-related energy-related GHG emissions.

The waste-related emissions associated with the two individual development projects would be reduced through compliance with the City's Recycling and Compositing Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code. These regulations reduce the amount of material sent to landfills, thereby reducing GHGs emitted by landfill operations. These regulations would also promote the reuse of materials, conserving their embodied energy⁹¹ and reducing the energy required to produce new materials.

Compliance with the City's street tree planting requirements would serve to increase carbon sequestration. Other regulations, including those limiting refrigerant emissions and the Wood Burning Fireplace Ordinance, would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds.⁹² Therefore, the proposed projects are determined to be consistent with San Francisco's Greenhouse Gas Reduction Strategy.^{93,94}

⁹⁰ Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump, and treat water required for the project.

⁹¹ Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

⁹² Although not a GHG, volatile organic compounds are precursor pollutants that form ground-level ozone. Increased ground-level ozone is an anticipated effect of future global warming, which would result in added health effects locally. Reducing emissions of volatile organic compounds would reduce the anticipated local effects of global warming.

⁹³ San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 30 Van Ness Avenue*, 2018.

⁹⁴ San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 98 Franklin Street*, 2018.

The two individual development projects would be required to comply with regulations that have been proven effective. San Francisco's GHG emissions have decreased measurably compared with 1990 emissions levels, demonstrating that the City has met or exceeded Executive Order S-3-05, Assembly Bill 32, and the Bay Area 2010 Clean Air Plan GHG emission reduction goals for 2020. Other existing regulations, such as those implemented through Assembly Bill 32, will continue to reduce project contributions to climate change. In addition, San Francisco's local GHG emission reduction targets are consistent with the long-term GHG emission reduction goals of Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and the Bay Area 2017 Clean Air Plan. Therefore, because the two individual development projects would be consistent with the City's GHG emission reduction strategy, they would also be consistent with the GHG emission reduction goals of Executive Order S-3-05, Executive Order B-30-15, Assembly Bill 32, Senate Bill 32, and the Bay Area 2017 Clean Air Plan; would not conflict with these plans; and would not exceed San Francisco's applicable GHG threshold of significance. As such, the two individual development projects would result in a *less than significant* impact with respect to GHG emissions.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
10. WIND. Would the project:					
a) Alter wind hazards in publically accessible areas of substantial pedestrian use (Subsequent development under the Hub Plan, 30 Van Ness Avenue, 98 Franklin Street, Hub HSD)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Alter wind hazards in publically accessible areas of substantial pedestrian use (streetscape and street network improvements)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Implementation of subsequent development under the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, would have the potential to result in impacts related to wind. Accordingly, these topics are further analyzed and included in the EIR. However, the streetscape and street network improvements would be implemented entirely within existing public rights-of-way and would not involve construction of any buildings or other structures of a height or bulk great enough to result in adverse effects related to wind. Therefore, the proposed streetscape and street network improvements would not affect wind conditions in a substantial manner, impacts would be less than significant, and this project component will not be further analyzed in the EIR.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
11. SHADOW. Would the project:					
a) Create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces (Subsequent development under the Hub Plan, 30 Van Ness Avenue, 98 Franklin Street, Hub HSD)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create new shadow that substantially and adversely affects the use and enjoyment of publicly accessible open spaces (streetscape and street network improvements)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Implementation of subsequent development under the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, would have the potential to result in impacts related to shadow. Accordingly, these topics are further analyzed and included in the EIR. However, the streetscape and street network improvements would be implemented entirely within existing public rights-of-way and would not involve construction of any buildings or other structures of a height or bulk great enough to result in adverse effects related to shadow. Therefore, the proposed streetscape and street network improvements would not affect shadow conditions in a substantial manner, impacts would be less than significant, and this project component will not be further analyzed in the EIR.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
12. RECREATION. Would the project:					
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

The RPD owns and maintains approximately 3,433 acres of publicly accessible recreational and open space in the city.⁹⁵ Together with the approximately 2,457 acres of open space properties that are owned and managed by other City, state (255 acres, including the Candlestick Point State Recreation Area and Mount Sutro), and federal (1,642 acres, including the Presidio, Ocean Beach, Fort Funston, Fort Mason, Lands End, Sutro Heights, and China Beach) agencies, approximately 5,890 acres of parkland and open space are available within the city. These publicly owned open spaces make up approximately 20 percent of the city’s land area and include a variety of parks, walkways, landscaped areas, recreational facilities, and unmaintained open space. Overseen by the Recreation and Park Commission, the RPD administers more than 220 parks, playgrounds, and open spaces, including two outside the city limits. The system includes 25 recreation centers, nine swimming pools, five golf courses, and numerous tennis courts, baseball diamonds, soccer fields, and other sports venues. Included in the RPD’s responsibilities are the Marina Yacht Harbor, San Francisco Zoo, and Lake Merced Complex.

City residents benefit from the Bay Area’s regional open space system. Regional resources include public open spaces managed by the Midpeninsula Regional Open Space District in Santa Clara, San Mateo, and Santa Cruz counties; the East Bay Regional Park District in Alameda and Contra Costa counties; and the National Park Service in Marin and San Mateo counties. In addition to state park and recreational areas throughout the area, thousands of acres of watershed and agricultural lands are preserved as open spaces by water and utility districts or in private ownership; however, these lands are generally not accessible to the public.

The Hub Plan area encompasses an intensely developed urban area but does not contain large regional park facilities. The two recreational facilities managed by the RPD within the Hub Plan area are SoMa West Skate Park and SoMa West Dog Park. San Francisco Public Works manages

⁹⁵ City and County of San Francisco, *Recreation and Open Space Element*, 2014, http://generalplan.sfplanning.org/Recreation_OpenSpace_Element_ADOPTED.pdf, accessed: March 5, 2018.

one recreation facility, McCoppin Hub, in the Hub Plan area. In addition, there is one proposed private park, Brady Park, which will be constructed as part of the 1629 Market Street Project. The approximately 0.6-acre SoMa West Skate Park is located under U.S. 101 at Stevenson Street and Duboce Avenue. It contains skateboarding ramps for recreationalists.⁹⁶ The park is in the southern portion of the Hub Plan area. Adjoining the skate park is the SoMa West Dog Park, which is similarly located under U.S. 101, with entrances at the corner of Stevenson Street and Duboce Avenue and at Valencia Street between McCoppin Street and Duboce Avenue. This 0.4-acre park contains an open space area for dogs and their owners.⁹⁷ McCoppin Hub is a publically accessible 0.1-acre open space at the cul-de-sac where McCoppin Street terminates at the Central Freeway. The space is bounded on the east by Valencia Street. It features seating areas and landings for food trucks, art/craft display tables, and tents for live music performances.⁹⁸ When Brady Park is developed, it will serve as a privately owned public open space with areas of hardscape, gardens, seating, a play structure and play surface, bicycle parking, and pathways for people walking. In addition to these facilities within the Hub Plan area, there are six small parks and gardens; another is proposed outside the Hub Plan area but within 0.25 mile of the Hub Plan area boundary, as shown in **Table E.12-1**.⁹⁹

New open space areas are proposed or being developed in areas adjacent to the Hub Plan area.¹⁰⁰ In 2017, RPD acquired a new property at the intersection of 11th Street and Natoma Street. RPD is proposing to demolish the buildings on the property and covert the site into a 0.48-acre park. Plans for the park are still being developed.¹⁰¹ The Western SoMa Community Plan, the boundary of which is within 0.25 mile of the Hub Plan area boundary, is being implemented, and prioritizes public realm improvements such as recreational areas and open space.¹⁰² New development under the Western SoMa Community Plan would include small

⁹⁶ San Francisco Recreation and Parks Department, *2010–2018, SoMa West Skate Park*, 2018, <http://sfrecpark.org/destination/soma-west-skate-park/>, accessed: February 19, 2018.

⁹⁷ Ibid.

⁹⁸ *Shadow Analysis Report for the Hub Plan, San Francisco*, San Francisco Planning Department, Prevision Design, December 20, 2018.

⁹⁹ San Francisco Recreation and Parks Department, *San Francisco Recreation and Parks Land*, n.d., <http://sfrecpark.org/wp-content/uploads/SF-RecPark-Map.pdf>, accessed: February 26, 2018.

¹⁰⁰ San Francisco Planning Department, *Complete List of Plans and Projects*, 2018, <http://sf-planning.org/complete-list-plans-and-projects>, accessed: February 20, 2018.

¹⁰¹ San Francisco Planning Department, *Shadow Analysis Report for the Hub Plan, San Francisco*, Prevision Design, December 20, 2018.

¹⁰² Western SoMa Citizens Planning Task Force, *Western SoMa Community Plan*, prepared in partnership with the San Francisco Planning Department, fall 2011, http://commissions.sfplanning.org/soma/FinalPlan_optimized.pdf, accessed: February 20, 2018.

TABLE E.12-1. OPEN SPACES WITHIN 0.25 MILE OF THE HUB PLAN AREA

Name	Size (acres)	Amenities	Distance from Hub Plan Area (mile)
McCoppin Hub	0.10	Public plaza	Located inside Hub Plan area
SoMa West Skate Park	0.6	Skate park	Located inside Hub Plan area
SoMa West Dog Park	0.4	Dog park	Located inside Hub Plan area
Brady Park (Future)	0.46	Children’s play area, seating, walkways	Located inside Hub Plan area
11 th /Natoma Park Site (Future)	0.48	TBD	0.04
Page and Laguna Mini Park	0.15	Community garden	0.10
Civic Center Plaza	4.53	Children’s play area, performing arts plaza	0.13
Koshland Park	0.82	Basketball courts, community garden	0.15
Patricia’s Green	0.45	Children’s play area, picnic area, art exhibits every 6 months	0.17
United Nations Plaza	1.66	Open plaza	0.18
Page Street Community Garden	0.08	Community and educational garden	0.25

Sources: San Francisco Recreation and Parks Department, 2010–2018 Find A Destination, 2018, <http://sfrecpark.org/parks-open-spaces/find-a-destination/>, accessed: February 20, 2018.
San Francisco Recreation and Parks Department, 2010–2018, Patricia’s Green in Hayes Valley, 2018, <http://sfrecpark.org/destination/patricias-green-in-hayes-valley>, accessed: February 21, 2018.

neighborhood parks and better connectivity to larger recreational spaces such as the waterfront and Yerba Buena Gardens. The Better Market Street Project, portions of which are adjacent to the Hub Plan area, is currently undergoing environmental review. This project proposes transportation, streetscape, and safety improvements along 2.2 miles of San Francisco’s Market Street between Octavia Boulevard and The Embarcadero.¹⁰³ The Market and Octavia Area Plan, the boundary of which includes the Hub Plan area, has been in effect since 2007. It proposes a connected open space system throughout the entire Market and Octavia neighborhood. This system would consist of features such as a new plaza, new parks, light fixtures and benches that would be scaled for people walking, rooftop gardens, and a green connection. Since adoption of the Market and Octavia Area Plan in 2007, many projects have been completed in alignment with open space and recreational objectives. Examples of completed projects include Octavia Boulevard and Patricia’s Green in Hayes Valley; bicycle projects, including, but not limited to, a

¹⁰³ Better Market Street, *Factsheet, San Francisco*, n.d., <http://bettermarketstreetsf.org/docs/BMS-Factsheet.pdf>, accessed: February 20, 2018.

bicycle lane on Otis Street between South Van Ness Avenue and Gough Street, bicycle improvements along Market Street, enhanced bicycle protection on Market Street at Octavia Street, and bicycle lanes on 17th Street; improvements to the Hayes Valley Playground and Clubhouse, Duboce Park and the Harvey Milk Center for the Recreational Arts, and Koshland Park; new recreational areas, such as McCoppin Hub; and a new skate park and dog play area.

SAN FRANCISCO PLANNING CODE OPEN SPACE REQUIREMENTS

The planning code requires the provision of usable open space in conjunction with development projects. Project sponsors are required to incorporate certain amounts of open space into development projects, depending on a project's use and size, as well as the zoning district in which the site is located, to serve future project residents and/or employees. Planning Code section 135 requires open space to be provided for the use of residents in new dwelling units, with the amount required ranging from 36 to 300 square feet per unit. The requirement is generally higher in single-use residential districts than in mixed-use residential districts. Commonly accessible open space (designed for joint use by two or more units) is permitted at a ratio that is typically 1.33 times the required amount for private open space. In addition, Planning Code section 138 requires the provision of publicly accessible open space for uses other than residential and institutional uses in C-3-G districts at a ratio of one square foot to 50 square feet. The two individual development projects are currently zoned, or would be rezoned, C-3-G; therefore, they would be required to adhere to Planning Code section 138. The Hub Plan proposes to rezone the majority of the Hub Plan area to C-3-G, while a small area would be zoned as P (Public). All future developments in the C-3-G zoning district would be required to adhere to C-3-G open space requirements.

FUTURE OPEN SPACE DEVELOPMENT IN THE CITY

In 2012, the voters of San Francisco passed the San Francisco Clean and Safe Neighborhood Parks Bond, providing the RPD an additional \$195 million to continue capital projects for the renovation and repair of park, recreational, and open space assets. In addition, an update to the Recreation and Open Space Element (ROSE) of the general plan was adopted in April 2014. The amended ROSE provides a 20-year vision for open spaces in the city. It includes information and policies regarding accessing, acquiring, funding, and managing open spaces in San Francisco. The amended ROSE identifies locations where proposed open space connections should be built, specifically, streets that would be appropriate for potential "living alleys." In addition, the amended ROSE identifies the role of both the Better Streets Plan and the Green Connections Network with respect to open space and recreation. Green Connections are streets and paths that connect people to parks, open spaces, and waterfront areas while enhancing the ecology of the street environment.

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on recreational facilities could result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect recreational facilities; therefore, they are analyzed on a project-specific level.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further. This analysis considers how population growth resulting from implementation of the Hub Plan and development of the two individual projects would affect recreational facilities. The analysis also considers whether environmental impacts would result from development of the proposed open space improvements that would be constructed as a part of the two individual development projects. According to the CEQA significance criteria, the Hub Plan and the individual development projects would have an adverse environmental impact if they were to deteriorate existing recreational resources through increased use or require the construction or expansion of recreational facilities that may have an adverse effect on the environment.

IMPACTS AND MITIGATION MEASURES

Impact RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the use of existing parks and recreational facilities but would not result in substantial deterioration or physical degradation of such facilities or adverse physical environmental effects from development of new recreational facilities. (Less than Significant)

The Hub Plan would incentivize new development that would add residents and employees to the Hub Plan area. In total, the Hub Plan, including the two individual development projects, would result in approximately 15,700 new residents and approximately 275 new jobs compared to existing conditions. As described above, three existing, as well as one proposed, recreational facilities are within the Hub Plan area; an additional six resources and one proposed park would be within 0.25 mile. Although use of these resources may increase with area population growth, the Hub Plan and the two individual development projects are not expected to deteriorate current recreational facilities for the reasons discussed below.

Because development incentivized under the Hub Plan would increase the number of new residents in the area, there would be an increased demand for, and use of, nearby neighborhood parks and recreational facilities. It can be reasonably assumed that new residents would represent the greatest active use of parks and open spaces, using recreational facilities both within and near the Hub Plan area more than leisurely visitors. Although visitors would use public parks, they would most likely visit parks outside of the Hub Plan area and adjacent open spaces, including Civic Center Plaza and other RPD properties. To accommodate existing and future demand from residents, the Hub Plan proposes construction of a comprehensive streetscape and street network that would be friendly to people walking to increase access to existing, new, and improved open spaces. The new public realm improvements proposed under the Hub Plan are described in Chapter 2, Project Description, of the Draft EIR and include the following:

- Proposed improvements for 12th Street from Market Street to Mission Street would create new linear public green spaces with street trees. This new linear park experience would lead into a public plaza at the south end of 12th Street.
- Proposed improvements for South Van Ness Avenue from Mission Street to 13th Street would add a new signalized crossing for people walking and sidewalk bulb-outs in the middle of the block.
- Proposed improvements for 13th Street/Duboce Avenue from Folsom Street to Valencia Street would add a new protected westbound bikeway on 13th Street from Folsom Street to Mission Street and on Duboce Avenue from Mission Street to Valencia Street and a protected eastbound bikeway on 13th Street from Folsom Street to Mission Street and on Duboce Avenue from Mission Street to Valencia Street. In addition, the currently closed

sidewalk would be opened, and the sidewalk connection between Mission Street and South Van Ness Avenue on the north side of 13th Street would be improved. A new raised crosswalk would be constructed at Woodward Street and Duboce Avenue.

In addition, as described in Chapter 2, Project Description, of the Draft EIR, the two individual development projects would provide open space as follows:

- 30 Van Ness Avenue: 32,580 square feet of private and commonly accessible open space, including 3,300 square feet of privately owned public open space and 29,280 square feet of commonly accessible open space
- 98 Franklin Street: 33,940 square feet of private open space, including 22,410 square feet for residential uses and 11,530 square feet for school uses

Future development approved under the Hub Plan would be required to provide open space according to the requirements of the City's planning code.

Because of accessibility, future residents would most likely choose to use nearby onsite facilities provided as part of the two individual development projects, the various open space and public realm improvements described above, and the nearby parks listed in **Table E.12-1**, p. E.12-3, instead of more-distant park and recreational facilities. Existing local residents and employees who use existing parks and recreational facilities may choose to visit the new facilities that would be provided with the Hub Plan and the two individual development projects. This could reduce the rate of deterioration at parks and recreational facilities both within and near the Hub Plan area. An increase in population, and therefore an increase in the number of park users, is expected as a result of the development incentivized by the Hub Plan. However, such an increase, in and of itself, would not cause substantial physical deterioration of existing facilities or a need for new facilities to be constructed. Other factors that contribute to physical degradation of recreational resources include the availability of facilities, park design, the age of the infrastructure, how the park is used, and the level of maintenance. The Hub Plan's inclusion of open spaces as part of future development that could occur as a result of plan would reduce demand on other facilities in the project area that may otherwise experience deterioration. Overall, existing and future residents would have more opportunities to engage in recreational activity in their neighborhood as a result of the range of open spaces that would be developed as part of the Hub Plan.

Given the variety of nearby public parks, plazas, and recreational facilities, the increased usage of any one park would not be substantial. In addition, the provision of adequate onsite open space under the Hub Plan, including street improvements; and the two individual development projects; the anticipated increase in demand for recreational facilities generated by subsequent development projects incentivized under the Hub Plan as well as the two individual development projects would not increase the use of adjacent or nearby recreational facilities such that substantial physical deterioration of existing facilities would occur or be accelerated.

Any potentially adverse effects from the provision of open space under the Hub Plan and the two individual development projects would be associated with construction of these open spaces, such as noise, archaeological, or air quality impacts (e.g., emissions of dust and other pollutants, including diesel exhaust). Other effects include temporary street closures and vehicular traffic obstructions. These potential impacts are addressed in the Draft EIR as part of the analysis of construction impacts for the project as a whole, with mitigation measures provided as needed. In general, construction would be required to comply with the City's Clean Construction Ordinance and the Noise Ordinance. Overall, any physical effect on the environment would be associated with construction of recreational facilities. No long-term physical operational effects are anticipated. Construction of open spaces under subsequent development projects under the Hub Plan and the two individual development projects would not result in additional significant impacts that are not disclosed elsewhere in the Draft EIR; therefore, physical environmental impacts resulting from construction of open spaces under subsequent development projects under the Hub Plan and the two individual development projects would be considered *less than significant*. As discussed above, impacts related to the use of existing parks and recreational facilities would also be *less than significant*.

Mitigation: None required.

Impact C-RE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on recreational resources. (Less than Significant)

The cumulative geographic context for recreational facilities with development of the Hub Plan, the proposed streetscape and street network changes, and the two individual development projects, considers growth projections for the Hub Plan area and the city, in addition to all existing and potential new open spaces available to and accessible by the daytime and permanent population within the Hub Plan area.

As discussed above, additional recreational facilities in the Hub Plan area are being developed or in the planning stages. The Hub Plan would further this effort by providing its own network of open spaces. As stated above under Impact RE-1, the Hub Plan would not immediately physically degrade any recreational resources, would not result in significant effects related to the construction of new open spaces, and would not increase demand for and use of either neighborhood parks or recreational facilities that would result in substantial physical deterioration. As noted previously, other planning efforts, both specific to nearby neighborhoods and citywide, are under way in San Francisco to address existing and future open space needs. Therefore, given these efforts, and given that the Hub Plan would increase open space within the Hub Plan area, Hub Plan-related growth from development incentivized

under the Hub Plan and growth related to the two individual development projects, would have a *less-than-significant* impact related to recreation and would not contribute to any cumulative impacts.

Mitigation: None required.

<i>Topics:</i>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
13. UTILITIES AND SERVICE SYSTEMS.					
Would the project:					
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

The Hub Plan area is within an urban area that is served by existing public, private, and investor-owned utility service systems, with facilities for water, wastewater and stormwater collection and treatment, electrical power, natural gas, telecommunications, and solid waste collection and disposal. The Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD would add new residents and daytime and nighttime users to the area that would increase the demand for utilities and service systems in the area. Descriptions of the city's water supply system, combined sewer system, and solid waste collection and disposal operations are provided below.

WATER

BACKGROUND ON HETCH HETCHY REGIONAL WATER SYSTEM

San Francisco's Hetch Hetchy regional water system, operated by the San Francisco Public Utilities Commission (SFPUC), supplies water to approximately 2.7 million people. The system supplies both retail customers, primarily in San Francisco, and 27 wholesale customers in Alameda, Santa Clara, and San Mateo counties. An average of 85 percent of the water supply is from the Tuolumne River watershed; this water is stored in Hetch Hetchy Reservoir in Yosemite National Park. The remaining 15 percent is from local surface waters in the Alameda and Peninsula watersheds. The split between these resources varies from year to year, depending on

hydrological conditions and operational circumstances. Separate from the regional water system, the SFPUC owns and operates an in-city distribution system that serves retail customers in San Francisco. Approximately 97 percent of the San Francisco retail water supply is from the regional system; the remainder comprises local groundwater and recycled water.

WATER SUPPLY RELIABILITY AND DROUGHT PLANNING

In 2008, the SFPUC adopted the phased Water System Improvement Program (WSIP) to ensure the ability of the regional water system to meet certain level-of-service goals for water quality, seismic reliability, delivery reliability, and water supply through 2018.¹⁰⁴ The SFPUC's level-of-service goals for regional water supply are (1) to meet customer water needs in non-drought and drought periods and (2) meet dry-year delivery needs while limiting rationing to a maximum of 20 percent system-wide. In approving the WSIP, the SFPUC established a supply limitation of 265 million gallons per day (mgd) from its water supply resources in the Tuolumne, Alameda and Peninsula watersheds in years with normal (average) precipitation.¹⁰⁵ The SFPUC's water supply agreement with its wholesale customers ensures that approximately two-thirds of the total (up to 184 mgd) is available to wholesale purchasers, and the remaining one-third (up to 81 mgd) is available to retail customers. The total amount of water the SFPUC can deliver to retail and wholesale customers in any one year depends on several factors, including the amount of water that is available from natural runoff, the amount of water in reservoir storage, and the amount of that water that must be released from the system for purposes other than customer deliveries (e.g., required instream flow releases below reservoirs). The term "normal year" refers to hydrological conditions that allow the reservoirs to be filled by rainfall and snowmelt, thereby allowing full deliveries to customers; similarly, the terms "wet year" and "dry year" refer to hydrological conditions with above and below "normal" rainfall and snowmelt, respectively.

For planning purposes, the SFPUC uses a hypothetical drought that is more severe than what has historically been experienced. This drought sequence is referred to as the "design drought" and serves as the basis for planning and modeling future scenarios. The design drought sequence used by the SFPUC for water supply reliability planning uses an 8.5-year period that combines the following elements to represent a drought sequence under conditions that would be more severe than historical conditions:

- **Historical Hydrology:** A six-year sequence of hydrology from the historical drought that occurred from July 1986 to June 1992.

¹⁰⁴ On December 11, 2018, the SFPUC extended the timing of the WSIP water supply decision through 2028 in its Resolution No. 18-0212.

¹⁰⁵ SFPUC Resolution No. 08-200, *Adoption of the Water System Improvement Program Phased WSIP Variant*, October 30, 2008.

- **Prospective Drought:** A 2.5-year period that includes hydrology from the 1976–1977 drought.
- **System Recovery Period:** The last six months of the design drought are the beginning of the system recovery period. Precipitation begins in the fall, and by approximately December, inflow to reservoirs exceeds customer demands, and SFPUC system storage begins to recover.

Although the most recent drought (2012 through 2016) included some of the driest years on record for SFPUC watersheds, the design drought still represents a more severe drought with respect to duration and overall water supply deficit.

Based on historical records of hydrology and reservoir inflow from 1920 to 2017 and current delivery and flow obligations, with fully implemented infrastructure under the WSIP, normal or wet years occurred in 85 out of 97 years. This translates into roughly nine normal or wet years out of every 10 years. Conversely, system-wide rationing is required roughly one out of every 10 years. However, the frequency of dry years is expected to increase as climate change intensifies.

2015 URBAN WATER MANAGEMENT PLAN

The California Urban Water Management Planning Act¹⁰⁶ requires urban water supply agencies to prepare *urban water management plans* to plan for the long-term reliability, conservation, and efficient use of California’s water supplies to meet existing and future demands. The act requires water suppliers to update their plans every five years based on projected growth for at least the next 20 years.

Accordingly, the current urban water management plan for the City and County of San Francisco is the 2015 Urban Water Management Plan update.¹⁰⁷ The 2015 plan update presents information on the SFPUC’s retail and wholesale service areas, the regional water supply system and other water supply systems operated by the SFPUC, system supplies and demands, water supply reliability, Water Conservation Act of 2009 compliance, water shortage contingency planning, and water demand management.

The water demand projections in the 2015 plan reflect anticipated population and employment growth, socioeconomic factors, and the latest conservation forecasts. For San Francisco, housing and employment growth projections are based on the San Francisco Planning Department’s Land Use Allocation 2012 (see 2015 Urban Water Management Plan, Appendix E, Table 5, p. 21), which in turn is based on the Association of Bay Area Governments (ABAG) growth

¹⁰⁶ California Water Code, division 6, part 2.6, sections 10610 through 10656, as last amended in 2015.

¹⁰⁷ San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco*, June 2016. This document is available at <https://sfwater.org/index.aspx?page=75>

projections through 2040.¹⁰⁸ The 2015 plan presents water demand projections in five-year increments over a 25-year planning horizon through 2040. The Hub Plan was not specifically contemplated at the time that the department prepared Land Use Allocation 2012. However, the Hub Plan would serve to accommodate a portion of the Association of Bay Area Governments (ABAG) population and employment growth projections for San Francisco that formed the basis for the department's Land Use Allocation 2012 and the water demand projections contained in the 2015 Urban Water Management Plan. As further discussed in Section E.3, Population and Housing, the purpose of the Hub Plan is to concentrate a portion of projected growth in San Francisco within the plan area from other areas of the city that are less well served by transit. This redistribution of anticipated growth would not change the projections, analysis, or conclusions in the 2015 Urban Water Management Plan. The SFPUC will prepare the next update – the 2020 Urban Water Management Plan update – for adoption in 2021. The 2020 update will consider updated population and employment projections and anticipated water supply and demand through 2045.

The 2015 plan compares anticipated water supplies to projected demand through 2040 for normal, single-dry, and multiple-dry water years. Retail water supplies are comprised of regional water system supply, groundwater, recycled water, and non-potable water. Under normal hydrologic conditions, the total retail supply is projected to increase from 70.1 mgd in 2015 to 89.9 mgd in 2040. According to the plan, available and anticipated future water supplies would fully meet projected demand in San Francisco through 2040 during normal years.

On December 11, 2018, by Resolution No. 18-0212, the SFPUC amended its 2009 Water Supply Agreement between the SFPUC and its wholesale customers. That amendment revised the Tier 1 allocation in the Water Supply Allocation Plan to require a minimum reduction of 5 percent of the regional water system supply for San Francisco retail customers whenever system-wide reductions are required due to dry-year supply shortages.¹⁰⁹ When accounting for the requirements of this recently amended agreement, existing and planned supplies would meet projected retail water system demands in all years except for an approximately 3.6 to 6.1 mgd or 5.0 to 6.8 percent shortfall during dry years through the year 2040. This relatively small shortfall is primarily due to implementation of the amended 2009 water supply agreement. In such an event, the SFPUC would implement the SFPUC's Retail Water Shortage Allocation Plan and could manage this relatively small shortfall by prohibiting certain discretionary outdoor water uses and/or calling for voluntary rationing among all retail customers. Based on experience in past droughts, retail customers could reduce water

¹⁰⁸ Association of Bay Area Governments, *Jobs-Housing Connection Strategy*, May 2012, accessed July 10, 2019.

¹⁰⁹ SFPUC, Resolution No. 18-0212, December 11, 2018.

use to meet this projected level of shortfall. The required level of rationing is well below the SFPUC's regional water supply level of service goal of limiting rationing to no more than 20 percent on a system-wide basis.

Based on the 2015 Urban Water Management Plan, as modified by the 2018 amendment to the 2009 Water Supply Agreement, sufficient retail water supplies would be available to serve projected growth in San Francisco through 2040. While concluding supply is sufficient, the 2015 Urban Water Management Plan also identifies projects that are underway or planned to augment local supply. Projects that are underway or recently completed include the San Francisco Groundwater Supply Project and the Westside Recycled Water Project. A more current list of potential regional and local water supply projects that the SFPUC is considering is provided below under Additional Water Supplies.

In addition, the plan describes the SFPUC's ongoing efforts to improve dry-year water supplies, including participation in Bay Area regional efforts to improve water supply reliability through projects such as interagency interties, groundwater management and recharge, potable reuse, desalination, and water transfers. While no specific capacity or supply has been identified, this program may result in future supplies that would benefit SFPUC customers.

2018 BAY-DELTA PLAN AMENDMENT

In December 2018, the State Water Resources Control Board adopted amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary, which establishes water quality objectives to maintain the health of the rivers and the Bay-Delta ecosystem.¹¹⁰ Among the goals of the adopted Bay-Delta Plan Amendment is to increase salmonid populations in the San Joaquin River, its tributaries (including the Tuolumne River), and the Bay-Delta. Specifically, the plan amendment requires increasing flows in the Stanislaus, Tuolumne, and Merced rivers to 40 percent of unimpaired flow¹¹¹ from February through June every year, whether it is wet or dry. During dry years, this would result in a substantial reduction in the SFPUC's water supplies from the Tuolumne River watershed.

If this plan amendment is implemented, the SFPUC would be able to meet the projected retail water demands presented in the 2015 Urban Water Management Plan in normal years but would experience supply shortages in single dry years and multiple dry years. Implementation of the Bay-Delta Plan Amendment would result in substantial dry-year water supply shortfalls

¹¹⁰ State Water Resources Control Board Resolution No. 2018-0059, *Adoption of Amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Final Substitute Environmental Document*, December 12, 2018, available at https://www.waterboards.ca.gov/plans_policies/docs/2018wqcp.pdf, accessed July 10, 2019.

¹¹¹ "Unimpaired flow" represents the water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds.

throughout the SFPUC's regional water system service area, including San Francisco. The 2015 Urban Water Management Plan assumes limited rationing for retail customers may be needed in multiple dry years to address an anticipated supply shortage by 2040; the 2018 amendment to the 2009 Water Supply Agreement with wholesale customers would slightly increase rationing levels indicated in the 2015 plan. By comparison, implementation of the Bay-Delta Plan Amendment would result in supply shortfalls in all single dry years and multiple dry years and rationing to a greater degree than previously anticipated to address supply shortages not accounted for in the 2015 Urban Water Management Plan or as a result of the 2018 amendment to the Water Supply Agreement.

The state water board has stated that it intends to implement the plan amendment by the year 2022, assuming all required approvals are obtained by that time. However, at this time, the implementation of the Bay-Delta Plan Amendment is uncertain for several reasons, as described below.

First, under the federal Clean Water Act, the United States Environmental Protection Agency (U.S. EPA) must approve the water quality standards identified in the plan amendment within 90 days from the date the approval request is received. By letter dated June 11, 2019, the U.S. EPA rejected the state water board's two-page submittal as inadequate under the requirements of the Clean Water Act. Pursuant to the U.S. EPA's letter, the state water board has 90 days to respond with a submittal that complies with the law. At this point, the U.S. EPA has neither approved, nor disapproved, any of the revised water quality objectives. It is uncertain what determination the U.S. EPA will make regarding the water quality standards in the future and its decision could result in litigation.

Second, since adoption of the Bay-Delta Plan Amendment, over a dozen lawsuits have been filed in state and federal court, challenging the water board's adoption of the plan amendment, including legal challenges filed by the federal government at the request of the U.S. Bureau of Reclamation. That litigation is in the early stages, and there have been no dispositive court rulings as of this date.

Third, the Bay-Delta Plan Amendment is not self-executing and does not allocate responsibility for meeting its new flow requirements to the SFPUC or any other water rights holders. Rather, the plan amendment merely provides a regulatory framework for flow allocation, which must be accomplished by other regulatory and/or adjudicatory proceedings, such as a comprehensive water rights adjudication or, in the case of the Tuolumne River, the Clean Water Act, section 401 certification process in the Federal Energy Regulatory Commission's relicensing proceeding for Don Pedro Dam. The license amendment process is currently expected to be completed in the 2022-2023 timeframe. This process and other regulatory and/or adjudicatory proceeding would likely face legal challenges and have lengthy timelines, and quite possibly could result in a different assignment of flow responsibility for the Tuolumne River than currently exists (and therefore a different water supply effect on the SFPUC).

Fourth, in recognition of the obstacles to implementation of the Bay-Delta Plan Amendment, the water board directed its staff to help complete a “Delta watershed-wide agreement, including potential flow measures for the Tuolumne River” by March 1, 2019, and to incorporate such agreements as an “alternative” for a future amendment to the Bay-Delta Plan to be presented to the [water board] as early as possible after December 1, 2019.” In accordance with the water board’s instruction, on March 1, 2019, the SFPUC, in partnership with other key stakeholders, submitted a proposed project description for the Tuolumne River that could be the basis for a voluntary agreement with the state water board that would serve as an alternative path to implementing the Bay-Delta Plan’s objectives. On March 26, 2019, the SFPUC adopted Resolution No. 19-0057 to support its participation in the voluntary agreement negotiation process. To date, those negotiations are ongoing.

For these reasons, whether, when, and the form in which the Bay-Delta Plan Amendment will be implemented, and how those amendments will affect the SFPUC’s water supply, is currently unknown.

ADDITIONAL WATER SUPPLIES

In light of the adoption of the Bay-Delta Plan Amendment and the resulting potential limitation to the SFPUC’s regional water system supply during dry years, the SFPUC is expanding and accelerating its efforts to develop additional water supplies and explore other projects that would improve overall water supply resilience. Developing these supplies would reduce water supply shortfalls and reduce rationing associated with such shortfalls. The SFPUC has taken action to fund the study of additional water supply projects, which are listed below:

- Daly City Recycled Water Expansion
- Alameda County Water District Transfer Partnership
- Brackish Water Desalination in Contra Costa County
- Alameda County Water District-Union Sanitary District Purified Water Partnership
- Crystal Springs Purified Water
- Eastside Purified Water
- San Francisco Eastside Satellite Recycled Water Facility
- Additional Storage Capacity in Los Vaqueros Reservoir from Expansion
- Calaveras Reservoir Expansion

The capital projects that are under consideration would be costly and are still in the early feasibility or conceptual planning stages. These projects would take 10 to 30 or more years to implement and would require environmental permitting negotiations, which may reduce the amount of water that can be developed. The yield from these projects is unknown and not currently incorporated into SFPUC’s supply projections.

In addition to capital projects, the SFPUC is also considering developing related water demand management policies and ordinances, such as funding for innovative water supply and efficiency technologies and requiring potable water offsets for new developments.

WASTEWATER/STORMWATER COLLECTION AND TREATMENT

The San Francisco Public Utilities Commission provides wastewater services to San Francisco County and a portion of northern San Mateo County.¹¹² San Francisco's wastewater collection, treatment, and disposal system consists of a combined sewer system, which collects both sewage and stormwater; three wastewater treatment plants; and effluent outfalls to the Bay and the Pacific Ocean.¹¹³ The system's approximately 1,000 miles of underground pipes serve most of San Francisco. The San Francisco Public Utilities Commission maintains and operates three wastewater treatment facilities for the city: the Oceanside Water Pollution Control Plant, the Southeast Treatment Plant (SEP), and the North Point Wet-Weather Facility (NPF). These facilities combined can treat up to 575 mgd of wastewater and stormwater runoff.¹¹⁴

The Hub Plan area is served by the Southeast Treatment Plant (SEP), which treated an average dry-weather flow of 51.4 mgd in 2017.^{115,116} During a storm event, the SEP can treat up to 250 mgd.¹¹⁷ In 2017, the SEP treated a total of 25.409 billion gallons of combined sanitary, industrial, and stormwater flows in 2017.¹¹⁸ The Hub Plan area is also served by the North Point Facility (NPF) during wet weather, which operates when the SEP approaches capacity. The NPF has the capacity to treat 150 mgd when it rains.¹¹⁹ During wet weather, the capacity at the SEP is also supplemented by a series of storage/transport boxes located around the perimeter of the city. If wet-weather flows exceed the capacity of the overall system, the excess (primarily stormwater) is discharged from one of the 36 combined sewer overflow structures along the waterfront.

¹¹² San Francisco Public Utilities Commission, *Serving 2.7 Million Residential, Commercial, and Industrial Customers*, 2018, <https://sfwater.org/index.aspx?page=355>, accessed: February 12, 2018.

¹¹³ San Francisco Public Utilities Commission, *Wastewater Collection System*, 2018, <https://sfwater.org/index.aspx?page=399>, accessed: February 12, 2018.

¹¹⁴ San Francisco Public Utilities Commission, *San Francisco's Wastewater Treatment Facilities*, 2014, <http://www.sfwater.org/modules/showdocument.aspx?documentid=5799>, accessed: February 12, 2018.

¹¹⁵ This number was calculated using flows from three consecutive dry-weather months (July, August, and September).

¹¹⁶ Ahmad, Meei-Lih, Engineer, Engineering Division, San Francisco Public Utilities Commission, email to Caroline Vurlumis, ICF, May 18, 2018.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ San Francisco Public Utilities Commission, *Sewer System Improvement Program*, 2014, <http://sfwater.org/modules/showdocument.aspx?documentid=5801>, accessed: February 12, 2018.

SOLID WASTE

San Francisco uses a three-cart collection program that requires, under the City's Mandatory Recycling and Composting Ordinance (ordinance 100-09), residents and businesses to sort solid waste into recyclables; compostable items, such as food scraps and yard trimmings; and garbage. Recology (formerly Norcal Waste Systems, Inc.) provides solid waste collection, recycling, and disposal services for residential and commercial customers in San Francisco through its subsidiaries, San Francisco Recycling and Disposal, Golden Gate Disposal and Recycling, and Sunset Scavenger.¹²⁰ Materials are collected and hauled to the Recology Transfer Station/recycling center on Tunnel Avenue, near the southeastern city limit, for sorting and subsequent transport to other facilities. Recyclable materials are sent to Recology's Recycle Central facility, at Pier 96, where they are separated and sold to manufacturers that turn the materials into new products.¹²¹ Compostable items and garbage are taken to the Recology Transfer Station.¹²² The total demand on Recycle Central is approximately 1,000 tons per day, and the total demand on the Recology Transfer Station is approximately 2,000 tons per day.¹²³

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on utilities and service systems could result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van

¹²⁰ Mandatory Recycling and Composting, *File No. 081404, Ordinance No. 100-09, 2009*, https://sfenvironment.org/sites/default/files/policy/sfe_zw_sf_mandatory_recycling_composting_ord_100-09.pdf, accessed: February 12, 2018.

¹²¹ Stewart, Ken, Operations Manager, Recology Transfer Station, phone conversation with Jessica Viramontes, ICF, February 25, 2016.

¹²² Ibid.

¹²³ Ibid.

Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect utilities and service systems; therefore, they are analyzed on a project-specific level.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be an overlay on zoning maps and an internal city process, no impacts would result from implementation of the HSD, and this project component is not discussed further.

The associated population growth from implementation of the zoning changes under the Hub Plan, including the two individual development projects, would result in increased demand on utilities and service systems.

The analysis of water supply capacity is based on review of SFPUC data on water supply (principally the commission's current 2015 Urban Water Management Plan); demand is calculated largely based on SFPUC demand factors (furnished by SFPUC's Non-potable Water Calculator). This EIR analyzes the Hub Plan's water demand as well as project-specific demand that would be generated by the 30 Van Ness Avenue and 98 Franklin Street projects. The approach for each is described below.

HUB PLAN

The Hub Plan is considered a regulatory program that would change current zoning controls in the Hub Plan area to meet plan objectives; this EIR analyzes the potential physical secondary environmental effects of rezoning the 18 parcels associated with the Hub. Pursuant to CEQA Guidelines section 15146, an EIR on a project such as the adoption or amendment of a comprehensive zoning ordinance or a local general plan should focus on the secondary effects that can be expected to follow from the adoption or amendment, but the EIR need not be as detailed as an EIR on the specific construction projects that might follow. As a regulatory program, the Hub Plan does not require an individual water supply assessment. With the exception of projects that qualify for ministerial approval under the Hub's HSD, subsequent development projects in the Hub Plan would be subject to CEQA Guidelines section 15155 at the time individual specific projects are proposed. However, to inform the environmental analysis, the department estimated water demand for the subsequent development projects

anticipated under the Hub Plan¹²⁴. Using SFPUC's District Scale Non-Potable Water Calculator, the department calculated the water demand that would result from development anticipated under the Hub Plan. These calculations estimate: (1) *total* water demand; (2) the portion of total demand that would be met by the SFPUC's water supply system; and (3) the portion of total demand that would be met by non-potable sources as required under San Francisco's non-potable ordinance. The SFPUC reviewed and concurred with the assumptions and inputs used to estimate the Hub Plan's water demand.¹²⁵

As previously described, the Hub Plan EIR evaluates two individual development projects as well as streetscape and street network improvements at a project-specific level. The approaches to analysis for the two development projects are described in detail below. The streetscape and street network improvements projects are not considered water demand projects, and as such, require no further analysis related to water demand.

30 VAN NESS AVENUE

The 30 Van Ness Avenue Project is evaluated at the project-specific level in the Hub Plan EIR. As a residential development with 610 dwelling units, the project meets the definition of a water demand project under CEQA and requires a water supply assessment. The project-specific analysis of impacts on water supply facilities is provided below.

98 FRANKLIN STREET PROJECT

The 98 Franklin Street Project does not qualify as a water-demand project as defined by CEQA Guidelines section 15155(a)(1) because it would consist of 345 residential units, 81,000 square feet of institutional use for International High School, and 3,100 square feet of retail space. Together, these uses would not demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project (CEQA Guidelines section 15155(a)(1)(G)). No water supply assessment was prepared for this project, however, a project-specific analysis of impacts on water supply facilities is provided below.

¹²⁴ As a point of clarification, the total Hub Plan water demand estimate includes the water demand from the two individual development projects analyzed in the EIR.

¹²⁵ Fan Lau, "Re: Hub-Water Calculations Revised (Possible to review by May 28?)," E-mail message to Elizabeth White (SF Planning Department), May 30, 2019.

IMPACTS AND MITIGATION MEASURES

Impact UT-1: Sufficient water supplies are available to serve the Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and reasonably foreseeable future development in normal, dry, and multiple dry years unless the Bay Delta Plan Amendment is implemented; in that event the SFPUC may develop new or expanded water supply facilities to address shortfalls in single and multiple dry years but this would occur with or without implementation of the Hub Plan. Impacts related to new or expanded water supply facilities cannot be identified at this time or implemented in the near term; instead, the SFPUC would address supply shortfalls through increased rationing, which could result in significant cumulative effects, but the Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not make a considerable contribution to impacts from increased rationing. (Less than Significant)

WATER DEMAND ESTIMATES

HUB PLAN

As part of the Utilities and Service Systems analysis in this initial study, the planning department estimated the water demand associated with the Hub Plan. This estimate is based on growth projections associated with the 18 sites proposed for upzoning under the Hub Plan and includes the project-specific development at 30 Van Ness Avenue and 98 Franklin Street.

Some Hub sites would be subject to San Francisco's Non-potable Water Ordinance (article 12C of the San Francisco Health Code). The Non-potable Water Ordinance requires new commercial, mixed-use, and multi-family residential development projects with 250,000 square feet or more of gross floor area to install and operate an onsite non-potable water system.¹²⁶

The department estimated both potable and non-potable demands for the Hub Plan using the SFPUC's Non-potable Water Calculator. Based on the proposed land uses and development program, the department anticipates that six of the 18 sites would be subject to the requirements of the Non-potable Water Ordinance: 33 Gough Street-City College, 30 Otis Street, 99 South Van Ness Avenue, 1695 Mission Street, 1 South Van Ness, and 30 Van Ness Avenue. For the purpose of calculating Hub Plan water demand, the department assumed that the Non-potable Water Ordinance would not apply to the remaining Hub Plan sites.

¹²⁶ Such projects must meet their toilet and urinal flushing and irrigation demands through the collection, treatment, and use of available graywater, rainwater, and foundation drainage.

Given these assumptions, the Hub Plan's total water demand would be 0.80 mgd, (of which 0.06 mgd could be met by non-potable water). Accordingly, 8 percent of the Hub Plan's total water demand would be met by non-potable water.

The Hub Plan's anticipated potable water demand of 0.74 mgd would contribute 0.82 percent to the projected total retail demand of 89.9 mgd in 2040. The project's total water demand of 0.80 mgd, which does not account for the 0.06 mgd savings anticipated through compliance with the non-potable water ordinance, would represent 0.89 percent of 2040 total retail demand. Thus, the Hub Plan represents a small fraction of the total projected water demand in San Francisco through 2040.

Future retail (citywide) water demand through 2040 is estimated based on the population and employment growth projections contained in the planning department's Land Use Allocation 2012. As discussed above and in Section E.3, Population and Housing of this EIR, the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, represent a portion of the planned growth accounted for in Land Use Allocation 2012. Therefore, the Hub Plan's demand is incorporated in the 2015 Urban Water Management Plan.

Due to the 2018 Bay Delta Plan Amendments, Hub Plan water demand estimates are considered under three water supply scenarios. The following scenarios evaluate the ability of the water supply system to meet the demand of the Hub Plan, in combination with both existing development and projected growth in San Francisco.

- Scenario 1: Current Water Supply
- Scenario 2: Bay-Delta Plan Voluntary Agreement
- Scenario 3: 2018 Bay-Delta Plan Amendment

As discussed below, water supplies would be available to meet the demand of the Hub Plan in combination with both existing development and projected growth in San Francisco through 2040 under each of these water supply scenarios with varying levels of rationing during dry years.

Scenario 1 – Current Water Supply

Scenario 1 assumes no change to the way in which water is supplied, and that neither the Bay-Delta Plan Amendment nor a Bay-Delta Plan Voluntary Agreement would be implemented. Thus, the water supply and demand assumptions contained in the 2015 Urban Water Management Plan and the 2009 Water Supply Agreement as amended would remain applicable for the Hub. As stated above, the Hub Plan is accounted for in the demand projections in the 2015 Urban Water Management Plan.

Under Scenario 1, water supplies would be available to meet the demand of the project in combination with existing development and projected growth in all years, except for an approximately 3.6 to 6.1 mgd or 5.0- to 6.8-percent shortfall during dry years through the year

2040. This relatively small shortfall is primarily due to implementation of the amended 2009 Water Supply Agreement. To manage a small shortfall such as this, the SFPUC may prohibit certain discretionary outdoor water uses and/or call for voluntary rationing by its retail customers. During a prolonged drought at the end of the 20-year planning horizon, the project could be subject to voluntary rationing in response to a 6.8-percent supply shortfall, when the 2018 amendments to the 2009 Water Supply Agreement are taken into account. This level of rationing is well within the SFPUC's regional water system supply level of service goal of limiting rationing to no more than 20 percent on a system-wide basis (i.e., an average throughout the regional water system).

Scenario 2 – Bay-Delta Plan Voluntary Agreement

Under Scenario 2, a voluntary agreement would be implemented as an alternative to the adopted Bay-Delta Plan Amendment. The March 1, 2019, proposed voluntary agreement submitted to the state water board has yet to be accepted, and the shortages that would occur with its implementation are not known. The voluntary agreement proposal contains a combination of flow and non-flow measures that are designed to benefit fisheries at a lower water cost, particularly during multiple dry years, than would occur under the Bay-Delta Plan Amendment. The resulting regional water system supply shortfalls during dry years would be less than those under the Bay-Delta Plan Amendment and would require rationing of a lesser degree and closer in alignment to the SFPUC's adopted level of service goal for the regional water system of rationing of no more than 20 percent system-wide during dry years. The SFPUC Resolution No. 19-0057, which authorized the SFPUC staff to participate in voluntary agreement negotiations, stated its intention that any final voluntary agreement allow the SFPUC to maintain both the water supply and sustainability level of service goals and objectives adopted by the SFPUC when it approved the WSIP. Accordingly, it is reasonable to conclude that if the SFPUC enters into a voluntary agreement, the supply shortfall under such an agreement would be of a similar magnitude to those that would occur under Scenario 1. In any event, the rationing that would be required under Scenario 2 would be of a lesser degree than under the Bay-Delta Plan Amendment as adopted.

Scenario 3 – Bay-Delta Plan Amendment

Under Scenario 3, the 2018 Bay-Delta Plan Amendment would be implemented as it was adopted by the state water board without modification. As discussed above, there is considerable uncertainty whether, when, and in what form the plan amendment will be implemented. However, because implementation of the plan amendment cannot be ruled out at this time, an analysis of the cumulative impact of projected growth on water supply resources under this scenario is included in this document to provide a worst-case impact analysis.

Under this scenario, which is assumed to be implemented after 2022, water supplies would be available to meet projected demands through 2040 in wet and normal years with no shortfalls. However, under Scenario 3 the entire regional water system—including both the wholesale and retail service areas—would experience significant shortfalls in single dry and multiple dry years, which over the past 97 years occur on average just over once every 10 years. Significant dry-year shortfalls would occur in San Francisco, regardless of whether the Hub Plan is approved. Except for the currently anticipated shortfall to retail customers of about 6.1 mgd (6.8 percent) that is expected to occur under Scenario 1 during years seven and eight of the 8.5-year design drought based on 2040 demand levels, these shortfalls to retail customers would exclusively result from supply reductions resulting from implementation of the Bay-Delta Plan Amendment. The retail supply shortfalls under Scenario 3 would not be attributed to the incremental demand associated with the Hub Plan, because this demand is incorporated already in the growth and water demand/supply projections contained in the 2015 Urban Water Management Plan.

Under the Bay-Delta Plan Amendment, existing and planned dry-year supplies would be insufficient for the SFPUC to satisfy its regional water system supply level of service goal of no more than 20 percent rationing system-wide. The Water Shortage Allocation Plan does not specify allocations to retail supply during system-wide shortages above 20 percent. However, the plan indicates that if a system-wide shortage greater than 20 percent were to occur, regional water system supply would be allocated between retail and wholesale customers per the rules corresponding to a 16- to 20-percent system-wide reduction, subject to consultation and negotiation between the SFPUC and its wholesale customers to modify the allocation rules. These allocation rules result in shortfalls of 15.6 to 49.8 percent across the retail service area as a whole under Scenario 3. Total shortfalls under Scenario 3 would range from 12.3 mgd (15.6 percent) in a single dry year to 36.1 mgd (45.7 percent) in years seven and eight of the 8.5-year design drought based on 2025 demand levels and from 21 mgd (23.4 percent) in a single dry year to 44.8 mgd (49.8 percent) in years seven and eight of the 8.5-year design drought based on 2040 demand.¹²⁷

¹²⁷ Technical Memorandum from Steven Ritchie, SFPUC Water Enterprise to Lisa Gibson, San Francisco Planning Department, May 31, 2019, Table 3, p. 10.

30 VAN NESS AVENUE

Under sections 10910 through 10915 of the California Water Code, urban water suppliers like the SFPUC must prepare water supply assessments for certain large projects, as defined in CEQA Guidelines section 15155.¹²⁸ Water supply assessments rely on information contained in the water supplier's urban water management plan and on the estimated water demand of both the proposed project and projected growth within the relevant portion of the water supplier's service area. Because the proposed 30 Van Ness Avenue Project is a residential development with 610 dwelling units, it meets the definition of a water demand project under CEQA. Accordingly, the SFPUC adopted a water supply assessment for the proposed project on June 11, 2019.¹²⁹

The water supply assessment for the proposed project identifies the project's total water demand, including a breakdown of potable and non-potable water demands. The proposed project is subject to San Francisco's Non-potable Water Ordinance (article 12C of the San Francisco Health Code). The Non-potable Water Ordinance requires new commercial, mixed-use, and multi-family residential development projects with 250,000 square feet or more of gross floor area to install and operate an onsite non-potable water system. Such projects must meet their toilet and urinal flushing and irrigation demands through the collection, treatment, and use of available graywater, rainwater, and foundation drainage. Although not required, projects may use treated blackwater or stormwater if desired. Furthermore, projects may choose to apply non-potable water to other non-potable water uses, such as cooling tower blowdown and industrial processes, but are not required to do so under the ordinance. The proposed project would meet the requirements of the Non-potable Water Ordinance by using graywater and rainwater for toilet and urinal flushing and irrigation.

¹²⁸ Pursuant to CEQA Guidelines section 15155(1), "a water-demand project" means:

- (A) A residential development of more than 500 dwelling units.
- (B) A shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- (C) A commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor area.
- (D) A hotel or motel, or both, having more than 500 rooms, (e) an industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- (F) A mixed-use project that includes one or more of the projects specified in subdivisions (a)(1)(A), (a)(1)(B), (a)(1)(C), (a)(1)(D), (a)(1)(E), and (a)(1)(G) of this section.
- (G) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

¹²⁹ SFPUC, *Water Supply Assessment for 30 Van Ness Avenue Project*, June 11, 2019.

Both potable and non-potable demands for the project were estimated using the SFPUC's Non-potable Water Calculator and supplemented with additional calculations for commercial laundry demands. According to the demand estimates, the project's total water demand would be 0.066 mgd, which would be comprised of 0.055 mgd of potable water and 0.011 mgd of non-potable water. Accordingly, 15.9 percent of the project's total water demand would be met by non-potable water.

The water supply assessment estimates future retail (citywide) water demand through 2040 based on the population and employment growth projections contained in the planning department's Land Use Allocation 2012. The department has determined that the proposed project represents a portion of the planned growth accounted for in Land Use Allocation 2012. Therefore, the project's demand is incorporated in the 2015 Urban Water Management Plan.

The water supply assessment determined that the project's potable water demand of 0.055 mgd would contribute 0.06 percent to the projected total retail demand of 89.9 mgd in 2040. The project's total water demand of 0.066 mgd, which does not account for the 0.011 mgd savings anticipated through compliance with the non-potable water ordinance, would represent 0.07 percent of 2040 total retail demand. Thus, the proposed project represents a small fraction of the total projected water demand in San Francisco through 2040. As discussed on pages E.13-13 through E.13-15, the 30 Van Ness Avenue water supply assessment also considers demand estimates under three water supply scenarios due to the recent 2018 Bay Delta Plan Amendments.

Under Scenario 1 (Current Water Supply), the existing water supplies would be available to meet the demand of the 30 Van Ness Avenue Project in combination with existing development and projected growth in all years, except for an approximately 3.6 to 6.1 mgd or 5.0- to 6.8-percent shortfall during dry years through the year 2040.

Under Scenario 2 (Bay Delta Voluntary Agreement), the supply shortfall of water supplies would be of a similar magnitude to those that would occur under Scenario 1.

Under Scenario 3 (Bay-Delta Plan Amendment), total shortfalls of water supplies under Scenario 3 would range from 12.3 mgd (15.6 percent) in a single dry year to 36.1 mgd (45.7 percent) in years seven and eight of the 8.5-year design drought based on 2025 demand levels and from 21 mgd (23.4 percent) in a single dry year to 44.8 mgd (49.8 percent) in years seven and eight of the 8.5-year design drought based on 2040 demand.

98 FRANKLIN STREET

The proposed 98 Franklin Street Project does not qualify as a "water-demand" project as defined by CEQA Guidelines section 15155(a)(1); therefore, a water supply assessment has not been prepared for this project. Based on guidance from the California Department of Water Resources and a citywide demand analysis, the SFPUC has established that projects with a

water demand of less than 50,000 gallons per day do not meet the definition of a “water-demand project” as provided in CEQA Guidelines section 15155(a)(1).¹³⁰ The 98 Franklin Street Project would result in the construction of 345 residential units, 81,000 square feet of educational use, and 3,100 square feet of retail use. The development proposed by the project would represent 69 percent of the 500-unit limit and 17 percent of the 500,000 square feet of commercial space¹³¹ provided in section 15155(1)(A) and (B), respectively.

WATER SUPPLY IMPACT ANALYSIS

As described above, the supply capacity of the Hetch Hetchy regional water system that provides the majority of the city’s drinking water far exceeds the potential demand of any single development project in San Francisco. No single development project alone in San Francisco would require the development of new or expanded water supply facilities or require the SFPUC to take other actions, such as imposing a higher level of rationing across the city in the event of a supply shortage in dry years. Therefore, a separate plan-only analysis is not provided for this topic. The following analysis instead considers whether the Hub Plan, as well as the project specific development at 30 Van Ness Avenue and 98 Franklin Street, in combination with both existing development and other projected growth through 2040 would require new or expanded water supply facilities, the construction or relocation of which could have significant cumulative impacts on the environment. It also considers whether a high level of rationing would be required that could have significant cumulative impacts. It is only under this cumulative context that development in San Francisco could have the potential to require new or expanded water supply facilities or require the SFPUC to take other actions, which in turn could result in significant physical environmental impacts related to water supply. If significant cumulative impacts could result, then the analysis considers whether the project would make a considerable contribution to the cumulative impact.

IMPACTS RELATED TO NEW OR EXPANDED WATER SUPPLY FACILITIES

The SFPUC’s adopted water supply level of service goal for the regional water system is to meet customer water needs in non-drought and drought periods. The system performance objective for drought periods is to meet dry-year delivery needs while limiting rationing to a maximum of 20 percent system-wide reduction in regional water service during extended droughts. As the SFPUC has designed its system to meet this goal, it is reasonable to assume that to the extent the SFPUC can achieve its service goals, sufficient supplies would be available to serve existing

¹³⁰ Memorandum, from Steven R. Ritchie, Assistant General Manager, Water Enterprise, San Francisco Public Utilities Commission to Lisa Gibson, Environmental Review Officer, San Francisco Planning Department – Environmental Planning, May 31, 2019.

¹³¹ For the purpose of the 98 Franklin Street Project, the educational and retail uses were combined to represent the percentage of commercial use.

development and planned growth accounted for in the 2015 Urban Water Management Plan (which includes the Hub Plan, as well as the project specific development at 30 Van Ness Avenue and 98 Franklin Street) and that new or expanded water supply facilities are not needed to meet system-wide demand. While the focus of this analysis is on the SFPUC's retail service area and not the regional water system as a whole, this cumulative analysis considers the SFPUC's regional water supply level of service goal of rationing of not more than 20 percent in evaluating whether new or expanded water supply facilities would be required to meet the demands of existing development and projected growth in the retail area through 2040. If a shortfall would require rationing more than 20 percent to meet system-wide dry-year demand, the analysis evaluates whether as a result, the SFPUC would develop new or expanded water supply facilities that result in significant physical environmental impacts. It also considers whether such a shortfall would result in a level of rationing that could cause significant physical environmental impacts. If the analysis determines that there would be a significant cumulative impact, then per CEQA Guidelines section 15130, the analysis considers whether the project's incremental contribution to any such effect is "cumulatively considerable".

With the implementation of the Hub Plan, as well as the 30 Van Ness Avenue and 98 Franklin Street projects, existing and planned dry-year supplies would meet projected retail demands through 2040 under Scenario 1 within the SFPUC's regional water system adopted water supply reliability level of service goal. Therefore, the SFPUC could meet the water supply needs for the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects, in combination with existing development and other projected growth in San Francisco through 2040 from the SFPUC's existing system. The SFPUC would not be expected to develop new or expanded water supply facilities for retail customers under Scenario 1 and there would be no significant cumulative environmental impact.

The effect of Scenario 2 cannot be quantified at this time, but as explained previously, if it can be designed to achieve the SFPUC's level of service goals and is adopted, it would be expected to have effects similar to Scenario 1. Given the SFPUC's stated goal of maintaining its level of service goals under Scenario 2, it is expected that Scenario 2 effects would be more similar to Scenario 1 than to Scenario 3. In any event, any shortfall effects under Scenario 2 that exceed the SFPUC's service goals would be expected to be less than those under Scenario 3. Therefore, the analysis of Scenario 3 would encompass any effects that would occur under Scenario 2 if it were to trigger the need for increased water supply or rationing in excess of the SFPUC's regional water system level of service goals.

Under Scenario 3, the SFPUC's existing and anticipated water supplies would be sufficient to meet the demands of existing development and projected growth in San Francisco, including the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects, through 2040 in wet and normal years, which have historically occurred in approximately nine out of 10 years on average. During dry and multiple dry years, retail supply shortfalls of 15.6 to 49.8 percent could occur.

As a result of the adoption of the Bay-Delta Plan Amendment and the resulting potential limitations on supply to the regional water system during dry years, the SFPUC is increasing and accelerating its efforts to develop additional water supplies and explore other projects that would increase overall water supply resilience. The SFPUC is beginning to study water supply options, but it has not determined the feasibility of the possible projects, has not made any decision to pursue any particular supply projects, and has determined that the identified potential projects would take anywhere from 10 to 30 years or more to implement.

There is also a substantial degree of uncertainty associated with the implementation of the Bay-Delta Plan Amendment and its ultimate outcome; and therefore, there is substantial uncertainty in the amount of additional water supply that may be needed, if any. Moreover, there is uncertainty and lack of knowledge as to the feasibility and parameters of the possible water supply projects the SFPUC is beginning to explore. Consequently, the physical environmental impacts that could result from future supply projects is quite speculative at this time and would not be expected to be reasonably determined for a period of time ranging from 10 to 30 years. Although it is not possible at this time to identify the specific environmental impacts that could result, this analysis assumes that if new or expanded water supply facilities, such as those listed above under “Additional Water Supplies,” were developed, the construction and/or operation of such facilities could result in significant adverse environmental impacts, and that this would be a significant cumulative impact.

As discussed above, the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects would represent 0.89 percent of total demand and 0.82 percent of potable water demand in San Francisco in 2040, whereas implementation of the Bay Delta Plan Amendment would result in a retail supply shortfall of up to 49.8 percent.

Thus, new or expanded dry-year water supplies would be needed under Scenario 3 regardless of whether the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects are approved or constructed. As such, any physical environmental impacts related to the construction and/or operation of new or expanded water supplies would occur with or without the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects. Therefore, neither the Hub Plan nor the 30 Van Ness Avenue and 98 Franklin Street projects would have a considerable contribution to any significant cumulative impacts that could result from the construction or operation of new or expanded water supply facilities developed in response to the Bay-Delta Plan Amendment.

IMPACTS RELATED TO RATIONING

Given the long lead times associated with developing additional water supplies, in the event the Bay-Delta Plan Amendment were to take effect sometime after 2022 and result in a dry-year shortfall, the expected action of the SFPUC for the next 10 to 30 years (or more) would be limited to requiring increased rationing. The remaining analysis therefore focuses on whether

rationing at the levels that might be required under the Bay-Delta Plan Amendment could result in any cumulative impacts, and if so, whether the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects would make a considerable contribution to these impacts.

The SFPUC has established a process through its Retail Water Shortage Allocation Plan for actions it would take under circumstances requiring rationing. Rationing at the level that might be required under the Bay-Delta Plan Amendment would require changes to how businesses operate, changes to water use behaviors (e.g., shorter and/or less-frequent showers), and restrictions on irrigation and other outdoor water uses (e.g., car washing), all of which could lead to undesirable socioeconomic effects. Any such effects would not constitute physical environmental impacts under CEQA.

High levels of rationing could however lead to adverse physical environmental effects, such as the loss of vegetation cover resulting from prolonged restrictions on irrigation. Prolonged high levels of rationing within the city could also make San Francisco a less desirable location for residential and commercial development compared to other areas of the state not subject to such substantial levels of rationing, which, depending on location, could lead in turn to increased urban sprawl. Sprawl development is associated with numerous environmental impacts, including, for example, increased greenhouse gas emissions and air pollution from longer commutes and lower density development, higher energy use, loss of farmland, and increased water use from less water-efficient suburban development.¹³² In contrast, as discussed in the transportation section of the EIR, the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects are located in an area where VMT per capita is well below the regional average; development projects in San Francisco are required to comply with numerous regulations that would reduce greenhouse gas emissions, as discussed in the greenhouse gas section of this initial study, and San Francisco's per capita water use is among the lowest in the state. Thus, the higher levels of rationing on a citywide basis that could be required under the Bay-Delta Plan Amendment could lead directly or indirectly to significant cumulative impacts. The question, then, is whether the project would make a considerable contribution to impacts that may be expected to occur in the event of high levels of rationing.

While the levels of rationing described above apply to the retail service area as a whole (i.e., 5.0 to 6.8 percent under Scenario 1, 15.6 to 49.8 percent under Scenario 3), the SFPUC may allocate different levels of rationing to individual retail customers based on customer type (e.g., dedicated irrigation, single-family residential, multi-family residential, commercial, etc.) to achieve the required level of retail (citywide) rationing. Allocation methods and processes that have been considered in the past and may be used in future droughts are described in the

¹³² Pursuant to the SFPUC 2015 Urban Water Management Plan, San Francisco's per capita water use is among the lowest in the state.

SFPUC's current Retail Water Shortage Allocation Plan.¹³³ However, additional allocation methods that reflect existing drought-related rules and regulations adopted by the SFPUC during the recent drought are more pertinent to current and foreseeable development and water use in San Francisco and may be included in the SFPUC's update to its Retail Water Shortage Allocation Plan.¹³⁴ The Retail Water Shortage Allocation Plan will be updated as part of the 2020 Urban Water Management Plan update in 2021. The SFPUC anticipates that the updated Retail Water Shortage Allocation Plan would include a tiered allocation approach that imposes lower levels of rationing on customers who use less water than other customers in the same customer class and would require higher levels of rationing by customers who use more water. This approach aligns with the state water board's statewide emergency conservation mandate imposed during the recent drought, in which urban water suppliers who used less water were subject to lower reductions than those who used more water. Imposing lower rationing requirements on customers who already conserve more water is also consistent with the implementation of prior rationing programs based on past water use in which more efficient customers were allocated more water.

The SFPUC anticipates that, as a worst-case scenario under Scenario 3, the multi-family mixed-use residential and institutional, commercial, and office land uses that would be developed under the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street projects could be subject to up to 38- and 30--percent rationing respectively during a severe drought.¹³⁵ In accordance with the Retail Water Shortage Allocation Plan, the level of rationing that would be imposed on individual development projects/customers would be determined at the time of a drought or other water shortage and cannot be established with certainty prior to the shortage event. However, newly-constructed buildings, such as those that would be constructed as part of the Hub Plan, have water-efficient fixtures and non-potable water systems that comply with the latest regulations. Thus, if development projects under the Hub Plan demonstrate below-average water use, they would likely be subject to a lower level of rationing than other retail customers that meet or exceed the average water use for the same customer class.

¹³³ San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for the City and County of San Francisco, Appendix L – Retail Water Shortage Allocation Plan*, June 2016. This document is available at <https://sfwater.org/index.aspx?page=75>, accessed July 10, 2019.

¹³⁴ SFPUC, *2015-2016 Drought Program*, adopted by Resolution 15-0119, May 26, 2015, accessed July 10, 2019.

¹³⁵ This worst-case rationing levels for various customer classes in San Francisco were estimated for the purpose of preparing comments on the Draft Substitute Environmental Document in Support of Potential Changes to the Bay-Delta Plan (SED), dated March 16, 2017. See comment letter Attachment 1, Appendix 3, Page 5, Table 3. The comment letter and attachments are available at: https://www.waterboards.ca.gov/public_notices/comments/2016_baydelta_plan_amendment/docs/dennis_herrera.pdf, accessed July 10, 2019.

While any substantial reduction in water use in a new, water efficient building likely would require behavioral changes by building occupants that are inconvenient, temporary rationing during a drought is expected to be achievable through actions that would not cause or contribute to significant environmental effects. The effect of such temporary rationing would likely cause occupants to change behaviors but would not cause the substantial loss of vegetation because vegetation on these urban infill sites would be limited to ornamental landscaping, and non-potable water supplies would remain available for landscape irrigation in dry years. Development under the Hub Plan would primarily consist of multi-family residential uses along with some institutional, commercial, and office use, and it is not anticipated to include uses that would be forced to relocate because of temporary water restrictions, such as businesses that rely on significant volumes of water for operations. While high levels of rationing that would occur under Scenario 3 could result in future development locating elsewhere, existing residents, office workers, and businesses within the Hub Plan area would be expected to tolerate rationing for the temporary duration of a drought.

As discussed above, implementation of the Bay-Delta Plan Amendment would result in substantial system-wide water supply shortfalls in dry years. These shortfalls would occur with or without implementation of the Hub Plan. The Hub Plan's incremental increase in potable water demand (0.82 percent of total retail demand) would have a negligible effect on the levels of rationing that would be required throughout San Francisco under Scenario 3 in dry years.

As such, temporary rationing that could be imposed on development within the Hub Plan Area would not cause or contribute to significant environmental effects associated with the high levels of rationing that may be required on a city-wide basis under Scenario 3. Thus, the Hub would not make a considerable contribution to any significant cumulative impacts that may result from increased rationing that may be required with implementation of the Bay-Delta Plan Amendment, were it to occur.

CONCLUSION

As stated above, there is considerable uncertainty as to whether the Bay-Delta Plan Amendment will be implemented. If the plan amendment is implemented, the SFPUC will need to impose higher levels of rationing than its regional water system level of service goal of no more than 20 percent rationing during drought years by 2025 and for the next several decades. Implementation of the plan amendment would result in a shortfall beginning in years two and three of multiple dry-years in 2025 of 33.2 percent, and dry year shortfalls by 2040 ranging from 23.4 percent in a single dry year and year one of multiple dry years to up to 49.8 percent in years seven and eight of the 8.5-year design drought. While the SFPUC may seek new or expanded water supply facilities, it has not made any definitive decision to pursue particular actions and there is too much uncertainty associated with this potential future decision to identify environmental effects that would result. Such effects are therefore speculative at this time. In any case, the need to develop new or expanded water supplies in response to the Bay

Delta Plan Amendment and any related environmental impacts would occur irrespective of the water demand associated with the Hub Plan the 30 Van Ness Avenue Project, or the 98 Franklin Street Project. Given the long lead times associated with developing additional supplies, the SFPUC's expected response to implementation of the Bay-Delta Plan Amendment would be to ration in accordance with procedures in its Retail Water Shortage Allocation Plan.

Both direct and indirect environmental impacts could result from high levels of rationing. However, the Hub Plan, the 30 Van Ness Avenue Project, and the 98 Franklin Street Project would be expected to tolerate the levels of rationing imposed on them for the duration of the drought, and thus would not contribute to sprawl development caused by rationing under the Bay-Delta Plan Amendment.

Based on the proposed land use and program development, the department anticipates that six of the 18 sites in the Hub Plan would be subject to the requirements of the Non-potable Water Ordinance: 33 Gough Street-City College, 30 Otis Street, 99 South Van Ness Avenue, 1695 Mission Street, 1 South Van Ness, and 30 Van Ness Avenue. The six sites subject to the Non-potable Water Ordinance (including the 30 Van Ness Avenue Project) would not be expected to contribute to a loss of vegetation because project-generated non-potable supplies would remain available for irrigation in dry years.

For the purpose of calculating Hub Plan water demand, the department assumed that the Non-potable Water Ordinance would not apply to the 12 remaining Hub Plan sites. Although these remaining sites, including the 98 Franklin Street Project, would not be subject to the Non-potable Water Ordinance, these projects would not have a considerable contribution to any cumulative loss of vegetation that could result from high levels of rationing required under the Bay-Delta Plan Amendment because the redevelopment of these urban infill sites would not include large vegetated areas.

The small increase in potable water demand attributable to development under the Hub Plan compared to citywide demand would not substantially affect the levels of dry-year rationing that would otherwise be required throughout the city. Thus, the proposed Hub Plan, 30 Van Ness Avenue Project, and 98 Franklin Street Project would not make a considerable contribution to a cumulative environmental impact caused by implementation of the Bay-Delta Plan Amendment. Therefore, for the reasons described above, under all three scenarios, this impact would be considered less than significant.

Mitigation: None required.

Impact UT-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not require or result in the relocation, expansion, or construction of new wastewater treatment, stormwater, electric power, natural gas, or telecommunication facilities, or exceed capacity of the wastewater treatment provider when combined with other commitments. (Less than Significant)

Growth within the Hub Plan area could result in increased wastewater and stormwater flows into the combined sewer system. When increased flows exceed the combined storage and treatment capacity of the SEP, NPF, and the transport and storage boxes, excess flows are discharged to the Bay after receiving treatment equivalent to primary treatment.¹³⁶ An increase in the frequency of combined sewer discharge from the watershed could be a concern because combined sewer discharges contain pollutants for which the Bay is designated as an impaired water body pursuant to the Clean Water Act.

The Hub Plan and the two development projects could result in changes in flows to the City's combined sewer system, including 1) changes in the amount of wastewater generated and 2) changes in stormwater runoff volumes and rates. The effects on the combined sewer system and frequency of combined sewer discharges to the Bay is discussed below, along with the potential to exceed the wastewater treatment capacity of the SEP.

WASTEWATER TREATMENT REQUIREMENTS

CONSTRUCTION

Wastewater generation would occur periodically throughout the construction period for subsequent development projects incentivized by the Hub Plan and the two individual development projects. Construction activities could increase wastewater generation as a result of dewatering and demand from onsite construction workers. However, this demand would be temporary and nominal. Construction dewatering discharges would result in short-term increases in demand on existing wastewater or storm drainage facilities but proposed dewatering discharge methods would include options for direct discharge to the Bay under an existing National Pollutant Discharge Elimination System (NPDES) general permit. This would ensure that any discharges to the combined sewer system would be within the capacity of existing facilities and would not require the construction or expansion of existing facilities. If discharged directly to the Bay, the dewatering discharges would be subject to the permitting requirements of the RWQCB under the NPDES Volatile Organic Compound and Fuel General Permit (discussed in Section E.15, Hydrology and Water Quality), which typically involve reporting and monitoring requirements for discharges of extracted and treated groundwater.

¹³⁶ Primary treatment consists of removing materials from water that either float or settle out by gravity through a process such as screening, comminution, grit removal, and sedimentation.

Accordingly, the project sponsor or its contractors would be required to submit a notice of intent to the RWQCB, describing the proposed discharge and treatment system, and the RWQCB must issue an Authorization to Discharge once it is determined that the discharger is eligible to discharge under the permit. The treated water would most likely be discharged through a stormwater swale or an existing outfall pipe. Regular influent and effluent water quality monitoring would be conducted to demonstrate permit compliance. Therefore, project construction would result in a minimal increase in wastewater generation and would not be anticipated to have a substantial adverse impact on available wastewater treatment or conveyance capacity. Impacts during construction would be *less than significant*.

OPERATION

Wastewater and stormwater associated with operation of the Hub Plan and two individual development projects would flow to the City's combined stormwater and sewer system and be treated to the standards of the City's NPDES permit for the SEP. The treated water would be discharged to the Bay. The San Francisco Bay Area RWQCB sets and regulates NPDES requirements. Subsequent development projects allowed by the Hub Plan, including the two individual development projects, would comply with RWQCB standards, as well as the City's Stormwater Management Ordinance (ordinance No. 83 -10), which would require development under the Hub Plan and the individual development projects to reduce or eliminate the existing volume and rate of stormwater runoff discharged from the Hub Plan area. To achieve this, development in the Hub Plan area would implement and install appropriate stormwater management systems to manage stormwater onsite and limit demand on both collection system and wastewater facilities resulting from stormwater discharges. Because development under the Hub Plan and the two individual development projects would result in ground disturbance of an area greater than 5,000 square feet, a stormwater control plan would be prepared for review and approval by the San Francisco Public Utilities Commission. The stormwater control plan would include a maintenance agreement that must be signed by the project sponsor to ensure proper care of the necessary stormwater controls. During operations at 98 Franklin Street and 30 Van Ness Avenue, the projects would comply with San Francisco stormwater management and non-potable water ordinances through a combination of rainwater harvesting, gray water collection, and dual plumbing. Both the Stormwater Management Ordinance and the Non-Potable Water Program requirements would apply to the two development projects. Therefore, the proposed project would not exceed the wastewater treatment requirements of the RWQCB, and impacts would be *less than significant*.

WASTEWATER FACILITIES

All wastewater flows from the development in the Hub Plan area, including the two individual development projects, would be treated at the SEP or the NPF (during wet weather) prior to discharge through an existing outfall or overflow structure to the Bay.

Development in the Hub Plan area, including the two individual development projects, could result in up to 8,100 additional residential units in the vicinity. The volume of wastewater flows to the combined sewer system would be directly related to the amount of water used for purposes such as washing dishes and clothes, washing hands, flushing urinals and toilets, and operating water-cooled heating and ventilation systems. The discussion above under UT-1 focuses on the increased water demand that would occur with implementation of the Hub Plan and the two individual development projects.

Growth from subsequent development projects incentivized by the Hub Plan, as well as the two individual development projects, is anticipated to discharge approximately 95 percent of the potable water supplied as wastewater into the sewer system, which is consistent with the San Francisco Public Utilities Commission's standard assumption for multi-family residential buildings.¹³⁷ It is also anticipated that approximately 100 percent of non-potable recycled water used at the sites for the two individual development project would be discharged as wastewater into the sewer system. Development projects implemented pursuant to the Hub Plan, including the two individual development projects, would be required to comply with San Francisco's Non-Potable Water Program, which requires developers of buildings of 250,000 square feet or more to use non-potable water for toilet and urinal flushing. One potential source of non-potable water for these purposes is gray water generated onsite (e.g., from bathtubs, showers, bathroom sinks, washing machines, laundry tubs, cooling units). If future developers use onsite gray water for flushing, the amount of wastewater discharged to the combined sewer would be reduced by the approximate volume of gray water used. Because the program also allows the use of other non-potable water, such as rainwater and foundation drainage, for these purposes, it is reasonable to assume that half of the non-potable water demand would be met with onsite sources of gray water, which would reduce wastewater flows. In addition, a portion of the water would be consumed onsite rather than discharged to the sewer, and water use estimates do not account for use of recycled water in conjunction with sustainable designs, including Leadership in Energy and Environmental Design (LEED) standards. Finally, the California Building Code is updated every 3 years; after each update, the City adopts most of the statewide changes into its own building code. Future code versions are likely to include more stringent water conservation and recycling requirements, which would decrease the potable water demand from future development projects, although the effects of these as-yet undefined changes on wastewater flows cannot be quantified.

¹³⁷ San Francisco Public Utilities Commission, *Wastewater Service Charge Appeal*, 2018, <http://www.sfwater.org/index.aspx?page=132> accessed: February 12, 2018.

Existing dry-weather flows to the SEP are 60 mgd, or approximately 24.5 mgd less than the permitted 84.5 mgd capacity of the plant.^{138,139} For the Hub Plan, including the two individual development projects, the increase in wastewater generation due to the additional residential units that could be constructed by incentivized development would be partially offset by compliance with San Francisco's Non-Potable Water Program, LEED standards, and the California Building Code. Any additional wastewater generation would be accommodated by the City's existing wastewater infrastructure because adequate capacity (24.5 mgd) remains in the overall system. Therefore, no additional wastewater facilities would need to be built to accommodate the Hub Plan or the two individual development projects; the impact would be *less than significant*.

Mitigation: None required.

STORMWATER FACILITIES

No stormwater utility infrastructure upgrades are anticipated under the Hub Plan or the two individual development projects. In the event that stormwater utility infrastructure upgrades become necessary, compliance with stormwater quality regulations would be ensured during the planning and construction phases, in accordance with the existing San Francisco regulations described in Section E.15, Hydrology and Water Quality.

The Hub Plan area would be designed to meet the City's Stormwater Management Requirements and Design Guidelines (SMR). Development sites would be required to implement stormwater treatment measures, either at each individual site or within centralized stormwater management areas. In accordance with San Francisco's Stormwater Management Ordinance (San Francisco Public Works Code article 4.2) and SMR, individual development projects developed under the Hub Plan, including the two individual development projects would need to comply with the City's SMR. Accordingly, all projects that create or replace 5,000 square feet or more of impervious surfaces would be required to minimize the flow and volume of stormwater into the combined sewer system. The Hub Plan area, as well as most of the city, is almost entirely covered by impervious surfaces at present, and all future development projects would be located on sites that are already developed. Therefore, subsequent development projects incentivized under the Hub Plan that create or replace 5,000 square feet or more of impervious surfaces would be required to achieve a 25 percent reduction in the peak rate and total volume of stormwater runoff from the 2-year, 24-hour design storm compared with existing conditions. Smaller projects that create or replace between 2,500 and 5,000 square feet of

¹³⁸ California Regional Water Quality Control Board, San Francisco Bay Region, *Order No. R2-2008-0007*, NPDES No. CA0037664, 2008, https://www.waterboards.ca.gov/rwqcb2/board_decisions/adopted_orders/2008/R2-2008-0007.pdf, accessed: February 12, 2018.

¹³⁹ San Francisco Public Utilities Commission, *Sewer System Improvement Program*, 2014, <http://sfwater.org/modules/showdocument.aspx?documentid=5801>, accessed: February 12, 2018.

impervious surfaces in separate sewer areas would need to implement at least one site design measure, as outlined in the SMR, and submit an estimate runoff reduction volume to the San Francisco Public Utilities Commission using the State Water Resources Control Board's (SWRCB's) SMARTS calculator.¹⁴⁰

To achieve compliance, the sponsors for individual development projects that create or replace at least 2,500 square feet or more of impervious surfaces would be required to incorporate low-impact design techniques into the project design. Larger projects disturbing at least 5,000 square feet would also have to implement stormwater best management practices (BMPs) to reduce the flow rate and volume of stormwater entering the combined sewer system. Recommended BMPs to achieve these goals include infiltration methods, such as bio-retention areas, pervious paving, and other measures to minimize impervious surfaces. Reuse of stormwater for non-potable uses, such as irrigation or toilet and urinal flushing, in accordance with the City's Non-Potable Water Program, would also reduce the volume of stormwater discharged to the combined sewer system.

To meet open space objectives and improve the public realm, development related to the sites proposed for upzoning under the Hub Plan would incorporate open space in the design. The open space would be a mix of public and private spaces, including plazas and rooftop decks. The two individual development projects would incorporate several tens of thousands of square feet of open space: 32,580 square feet for 30 Van Ness Avenue and 33,940 square feet for 98 Franklin Street. Although the specific dimensions, designs, and amenities for the new open space are yet to be determined, some would incorporate landscape features and areas that would incrementally decrease the amount of impervious surface and thus incrementally decrease the amount of stormwater runoff into the combined sewer system. The proposed open space improvements would not result in any substantive increase in water flow to the combined sewer and would comply with the open space requirements of the Stormwater Management Ordinance. In addition, through compliance with San Francisco Green Building Ordinance requirements and the City's SMR, runoff water from the project site would not exceed the capacity of existing or planned stormwater drainage systems. Furthermore, the Hub Plan area is currently largely impervious, and subsequent development projects under the Hub Plan, including the two individual development projects, would increase the amount of pervious surfaces in the area. Therefore, subsequent development projects under the Hub Plan and the two individual development projects would not increase stormwater runoff rates and volumes. Through the increase in pervious surfaces, onsite stormwater treatment, and replacement of existing infrastructure, there would be a net reduction in stormwater flows to the SEP; thus, the capacity of the SEP would not be adversely affected. Therefore, this impact would be *less than significant*.

¹⁴⁰ San Francisco Public Utilities Commission, *How Do I Comply with the Stormwater Management Requirements?* 2018, <https://sfwater.org/index.aspx?page=1006>, accessed: July 10, 2019.

ELECTRIC POWER, NATURAL GAS, AND TELECOMMUNICATION FACILITIES

Subsequent development projects under the Hub Plan, including the two individual development projects, would install new connections to the surrounding Pacific Gas & Electric electric grid and natural gas system to provide service to the proposed buildings. Subsequent development projects under the Hub Plan, including the two individual development projects, would also provide connections to communication lines along adjacent roadways. These improvements for the 30 Van Ness Avenue and 98 Franklin Street projects are described in Chapter 2 of the EIR, and the environmental impacts associated with their construction are evaluated throughout this initial study and EIR. Other than localized connections to the existing systems, subsequent development projects under the Hub Plan, including the two individual development projects, would not result in the construction of electric, natural gas, or telecommunications facilities (e.g., electric substations, telecommunication towers).

The streetscape and street network improvements may require relocation of electric, natural gas, or telecommunications facilities during construction. If this occurs, affected infrastructure would be relocated or replaced in kind. Construction and operation of the streetscape and street network improvements would not require the expansion of new electric, natural gas, or telecommunications facilities. Therefore, the Hub Plan and the two individual development projects would not result in relocation or construction of new or expanded electric power, natural gas, or telecommunications facilities; the impact would be *less than significant*.

Mitigation: None required.

Impact UT-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, and comply with federal, state, and local management and reduction statutes and regulations related to solid waste. (Less than Significant)

In 2015, San Francisco executed a new contract with Recology to dispose of solid waste at the Hay Road Landfill in Solano County. Under the Landfill Disposal Agreement between the City and Recology, the Hay Road Landfill will serve as San Francisco's main disposal site until 5 million tons of waste has been deposited.¹⁴¹ The Hay Road Landfill is permitted by Solano County and the California Department of Resources Recycling and Recovery (CalRecycle) to

¹⁴¹ Raphael, Deborah O., *Approving Revised Landfill Disposal Agreement between the City and County of San Francisco with Recology San Francisco*, SF Environment memorandum to Commission on the Environment, July 22, 2015, https://sfenvironment.org/sites/default/files/notice/attach/sfe_zw_landfill_memo_coe_7_22_15.pdf, accessed: February 20, 2018.

accept up to 2,400 tons per day of municipal solid waste for disposal and operate up to 24 hours per day, 7 days per week. The landfill has 30,433,000 cubic yards of remaining capacity and a closure date of 2077.¹⁴²

Recycling, composting, and waste reduction efforts are expected to divert an increasing amount of waste from the landfill, per California and local requirements. The City was required by the state's Integrated Waste Management Act (Assembly Bill 939) to divert 50 percent of its waste stream from landfills by 2000. The City met this threshold in 2003 and later increased the amount of diverted waste, reaching 69 percent in 2005 and 70 percent in 2006. Furthermore, San Francisco exceeded its goal to divert 75 percent of its waste by 2010 and will implement new strategies to meet its zero-waste goal by 2020.¹⁴³ In 2016, the target disposal rate for San Francisco residents and employees was 6.6 pounds per resident per day and 10.6 pounds per employee per day. Both of these target disposal rates were met in 2016 (the most recent year reported), with San Francisco generating about 3.7 pounds per resident per day and about 4.6 pounds per employee per day.¹⁴⁴

Development incentivized under the Hub Plan as well as the two individual development projects would generate approximately 10,600 tons per year of solid waste that would necessitate disposal in a landfill.¹⁴⁵ As described above, the City is currently sending its solid waste to the Hay Road Landfill, which has a closure date of 2077. Therefore, there is sufficient permitted capacity in the landfill to accommodate the solid waste that would be generated by subsequent development projects under the Hub Plan and the two individual development projects. Furthermore, during operation of the buildings that would be constructed as a part of the Hub Plan, including the two individual development projects, residents and employees would be required to comply with the City's Mandatory Recycling and Composting Ordinance (Ordinance 100-09), which would further reduce the amount of solid waste that would be sent to the landfill. Given the city's progress to date on diversion and waste reduction, and given the existing future long-term capacity available at the Recology Hay Road Landfill and other area landfills, the proposed project would not generate solid waste in

¹⁴² California Department of Resource Recycling and Recovery, *Facility/Site Summary Details: Recology Hay Road (48-AA-0002)*, 2016, <http://www.calrecycle.ca.gov/SWFacilities/Directory/48-aa-0002/Detail/>, accessed: February 26, 2016.

¹⁴³ SF Environment, *Zero Waste-Frequently Asked Questions*, 2019, <https://sfenvironment.org/zero-waste-faqs>, accessed: July 10, 2019.

¹⁴⁴ California Department of Resource Recycling and Recovery, *Jurisdiction Diversion/Disposal Rate Detail*, 2016, <http://www.calrecycle.ca.gov/LGCentral/reports/diversionprogram/JurisdictionDiversionDetail.aspx?JurisdictionID=438&Year=2016>, accessed: February 21, 2018. The data do not provide separate averages for residential and non-residential generation but merely different metrics for averaging overall citywide waste generation.

¹⁴⁵ Calculation: 3.7 pounds/resident/day x 15,700 residents x 365 days/year = 21,202,850 pounds/year; converted into tons = 10,600 tons/year.

excess of state or local standards and would be served by regional landfills with sufficient permitted capacity to accommodate its solid waste disposal needs. Impacts would be *less than significant*.

Mitigation: None required.

Impact C-UT-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute to cumulative impacts on utilities and services. (Less than Significant)

The Hub Plan area, including the two individual development projects, and the service territories of the utility providers, serve as the geographical context for the cumulative impact analysis. Over time, growth in the Hub Plan area and San Francisco as a whole would result in increased demand for a reliable water supply, wastewater treatment, solid waste disposal, electric power, natural gas, and telecommunications. According to 2013 ABAG projections, San Francisco is expected to gain approximately 110,539 households (a 29 percent increase) and 280,465 people (a 35 percent increase) between 2010 and 2040.¹⁴⁶ Employment is forecast to increase by 191,000 during this period, resulting in 760,000 jobs.¹⁴⁷ Citywide growth would also generate increased demand for utilities.

WATER SUPPLY

Other development would increase demands on water supplies as well as water infrastructure and treatment facilities. However, the San Francisco Public Utilities Commission has incorporated the demand from other development projects in its future water service projections. The 30 Van Ness Avenue WSA (based on the 2015 Urban Water Management Plan) determined that, with the addition of planned retail supplies, the San Francisco Public Utilities Commission would have sufficient water supplies available to serve its retail customers, including the project, existing customers, and foreseeable future development. New or expanded water treatment facilities would not be required as a result of construction of the proposed project, and the proposed project's contribution to water demand would not adversely affect the city's water supply. Therefore, cumulative impacts on the city's water supply would be considered *less than significant*.

¹⁴⁶ Association of Bay Area Governments, *Projections 2013*, December 2013.

¹⁴⁷ Association of Bay Area Governments and Metropolitan Transportation Commission, *Jobs-Housing Connection Strategy*, May 16, 2012, https://www.planbayarea.org/sites/default/files/pdf/JHCS/May_2012_Jobs_Housing_Connection_Strategy_Main_Report.pdf, accessed: July 10, 2019.

WASTEWATER

The Hub Plan and two individual development projects would accommodate new development in the Hub Plan area, which, in turn, would result in up to 8,100 additional residential units.

Citywide water demand is forecast to increase steadily through 2040. After accounting for the projected savings from conservation, retail water demand is projected to increase from 64.8 mgd in 2015 to 83.9 mgd in 2040.¹⁴⁸ This is an increase of 19.1 mgd, or 29 percent, compared with water use in 2015. Based on the projected citywide increase in water use, year-round citywide wastewater discharges to the combined sewer system would increase by about 18.1 mgd by 2040, assuming a 95 percent conversion factor.

The anticipated growth in the Hub Plan area is conservatively estimated to increase the amount of water used. However, the related increase in wastewater flows would be less than any increase in water demand as a result of compliance with San Francisco's Non-Potable Water Program, LEED standards, and California Building Code. Each of the cumulative projects, including both individual development projects, would also be required to implement erosion and sediment control plans, in compliance with the city's NPDES permits and RWQCB and U.S. Environmental Protection Agency regulations regarding wastewater treatment and discharge. Compliance with these regulations would minimize impacts from cumulative construction sediment and contaminants entering the combined sewer system. Although each cumulative project would result in increased wastewater flows, each large project creating or disturbing more than 5,000 square feet of impervious area would also be required to reduce stormwater flows by 25 percent compared with existing conditions. The 25 percent reduction (relative to the 2-year storm) in stormwater flows would result in an overall reduction in combined wastewater and stormwater flows. As a result, the reasonably foreseeable cumulative projects would not combine to generate a cumulative impact related to wastewater flows. Therefore, cumulative impacts on the city's wastewater would be considered *less than significant*.

STORMWATER

Future development in the city outside of the Hub Plan area would consist primarily of infill and redevelopment projects, which would not substantially increase the amount of impervious surfaces in the city. Existing regulations require new projects to adhere to the Stormwater Management Ordinance (No. 64-16). Development that would create or replace more than 5,000 square feet of impervious surface would be required to comply with the Construction Site Runoff Control Ordinance, which requires preparation of an Erosion and Sediment Control Plan or stormwater pollution prevention plan (SWPPP) and submittal of a Construction Site

¹⁴⁸ San Francisco Public Utilities Commission, *2015 Urban Water Management Plan for City and County of San Francisco*, 2016, <http://www.sfwater.org/Modules/ShowDocument.aspx?documentID=8839>, accessed: March 6, 2018.

Runoff Control Permit Application. Furthermore, various infrastructure improvements to sewers and pump stations as well as stormwater management projects in the Hub Plan area would increase treatment or conveyance capacity. Therefore, cumulative impacts on the city's stormwater drainage facilities would be considered *less than significant*.

LANDFILL CAPACITY

Long-range growth forecasts are considered in the City's planning for future landfill capacity, as described above. San Francisco has a goal of 75 percent landfill diversion by 2010 and 100 percent by 2020.¹⁴⁹ Approximately 80 percent of San Francisco's solid waste was being diverted from landfills by 2012, indicating that San Francisco was exceeding the statewide goal of a 75 percent reduction in solid waste by 2020. Therefore, the city is expected to reduce solid waste volumes in the future. Reasonably foreseeable cumulative development projects, in combination with the proposed project, would incrementally increase total waste generation from the city by increasing the number of residents as well as excavation, demolition, and remodeling activities associated with growth. However, the increasing rate of diversion citywide through recycling, composting, and other methods would result in a decreasing share of total waste that would require deposition into a landfill. As with the Hub Plan and the two individual development projects, other development would be subject to the City's Mandatory Recycling and Composting Ordinance, which requires all San Francisco residents and commercial landlords to separate their refuse into recyclables, compostables, and trash, thereby minimizing solid waste disposal and maximizing recycling. Other development would also be subject to the City's Construction and Demolition Debris Recovery Ordinance, which requires all construction and demolition debris to be transported to a registered facility that can divert a minimum of 65 percent of the material from landfills. Given the city's progress to date on diversion and waste reduction and given the future long-term capacity available at the Recology Hay Road Landfill and other area landfills, the proposed project would be served by a landfill with sufficient permitted capacity to accommodate its solid waste disposal needs. For these reasons, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would have *less-than-significant* cumulative impacts related to solid waste.

ELECTRIC POWER, NATURAL GAS, AND TELECOMMUNICATIONS

Future development in the city outside of the Hub Plan area would consist primarily of infill and redevelopment projects, which would not substantially increase the amount of electric power, natural gas, and telecommunications required. Existing regulations require new projects to adhere to energy efficiency standards. All new development in the city would be required to comply with the standards of Title 24 and the 2016 San Francisco Green Building Code, thereby

¹⁴⁹ San Francisco Department of the Environment, *Zero Waste FAQs*, <https://sfenvironment.org/zero-waste-faqs>, accessed: October 6, 2018.

minimizing the amount of energy used. Future development, including subsequent development projects in the Hub Plan area and the two individual development projects, would similarly need to comply with these standards. Therefore, cumulative impacts on the city's electric power, natural gas, and telecommunications facilities would be considered *less than significant*.

Mitigation: None required.

Topics:	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
14. PUBLIC SERVICES. Would the project:					
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for any public services, such as fire protection, police protection, schools, parks, or other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

SAN FRANCISCO POLICE DEPARTMENT

The San Francisco Police Department (SFPD), headquartered at 850 Bryant Street in the Hall of Justice (approximately 0.6 mile east of the Hub Plan area), provides police protection services for the city. The SFPD is mandated by City Charter to maintain a minimum of 1,971 sworn officers; in addition, the board of supervisors passed Resolution No. 248-15 in 2015, which increased the mandated minimum staffing level to 2,200 sworn officers.¹⁵⁰ However, despite implementation of a 6-year hiring plan, the SFPD is approximately 100 officers short of its goal of 1,971 sworn officers, but it is currently slated to hire five academy classes per year for at least the next 2 years, with 50 recruits in each class.¹⁵¹

The Hub Plan area overlaps with three police districts: Northern, Southern, and Tenderloin.¹⁵² The Northern District is bordered by Larkin Street to the east, Steiner Street to the west, Market Street to the south, and the water’s edge in the Marina District to the north. The Northern District includes the neighborhoods of Lower Haight; Ashbury; Hayes Valley; Western Addition; the Lower, Middle, and Upper Polk Communities; Japan Town; Lower Russian Hill; Pacific Heights; Cow Hollow; and the Marina.¹⁵³ The Southern police district’s boundaries are Market Street to the northwest, the Bay to the northeast, Mission Creek to the southeast, and Division Street/13th Street to the southwest. The Southern District includes the neighborhoods of

¹⁵⁰ San Francisco Board of Supervisors, *Resolution No. 248-15, Establishing a Population Based Police Staffing Policy*, June 23, 2015, <http://sfbos.org/ftp/uploadedfiles/bdsupvrs/resolutions15/r0248-15.pdf>, accessed: July 10, 2019.

¹⁵¹ San Francisco Police Department, personal communication, March 13, 2018.

¹⁵² San Francisco Police Department, *Annual Report, 2014*, <https://sanfranciscopolice.org/annual-reports>, accessed: February 22, 2018.

¹⁵³ *Ibid.*

South Park, Yerba Buena, South Beach, and Rincon Hill. The Tenderloin District is bordered by Market, Larkin, Geary, and Grant streets. The Tenderloin District is the smallest of the police districts and serves the Tenderloin neighborhood.¹⁵⁴

The Hub Plan area would be served by all three districts. The Northern police district, with its station at 1125 Fillmore Street, covers approximately 5.3 square miles of the city, has a population of 96,336, and has five sectors.¹⁵⁵ The Southern police district, with its station at 850 Bryant Street, covers approximately 2.9 square miles, has a population of 41,832, and has five sectors on the mainland and two sectors on Treasure Island.¹⁵⁶ The Tenderloin police district, with its station at 301 Eddy Street, covers an area of approximately 0.35 square mile, has a population of 23,941, and has six sectors.^{157,158} The district is also home to the Central Market Public Safety Hub on Sixth Street, which is the office (substation) from which the Mid-Market Foot Beat operates. The purpose of the Central Market Public Safety Hub is to increase the number of beat officers for public safety services, crime stabilization, and crime prevention.¹⁵⁹

The SFPD routinely increases police protection for special events. This includes assigning additional SFPD personnel (police officers and onsite command/dispatch center personnel) specifically for these events. The level of SFPD personnel required for a particular event is determined by the SFPD's Event Commander, who coordinates with the event sponsor in advance of the event, as well as the event security/operations plans. The Department of Parking and Traffic typically provides vehicular traffic control services for special events. The Southern District is also responsible for managing law enforcement services for many events each year, including, Oracle World, Dreamforce, the Google convention, and San Francisco Giants home games at AT&T Park. San Francisco Giants home games are no longer staffed by on-duty officers but are instead staffed by off-duty officers while on overtime. Other events in the vicinity, such as the St. Patrick's Day Parade and the Gay Pride Parade, are staffed by other SFPD districts.¹⁶⁰

¹⁵⁴ Ibid.

¹⁵⁵ San Francisco Police Department, personal communication, March 13, 2018.

¹⁵⁶ San Francisco Police Department, personal communication, March 13, 2018.

¹⁵⁷ San Francisco Police Department, *Annual Report, 2014*, <https://sanfranciscopolice.org/annual-reports>, accessed: February 22, 2018.

¹⁵⁸ San Francisco Police Department, personal communication, March 13, 2018.

¹⁵⁹ City of San Francisco, *Mayor Lee Celebrates Opening of SFPD Central Market Safety Hub on Sixth Street, 2013*, <http://sfmayor.org/article/mayor-lee-celebrates-opening-sfpd-central-market-safety-hub-sixth-street>, accessed: July 10, 2019.

¹⁶⁰ San Francisco Police Department, personal communication, March 13, 2018.

The SFPD does not have an established goal for response time. However, it strives to maintain an average response time of 4 minutes for Priority A calls, which are considered the highest priority and receive an emergency dispatch and respond to Priority B calls within 7 minutes and 50 seconds.¹⁶¹ As shown in **Table E.14-1**, there were approximately 53,898 crimes in the city in 2016. The average crime rate citywide was approximately 63 crimes per 1,000 persons in 2016.¹⁶²

TABLE E.14-1. TOTAL NUMBER OF CRIMES IN SAN FRANCISCO

	Years							Change (2015 to 2016)	
	2010	2011	2012	2013	2014	2015	2016	Total	Percent
Total Crimes	38,284	38,421	44,882	55,615	52,095	60,068	53,898	-6,169	- 10.2%

Source: San Francisco Police Department, Year-End Crime Statistics, 2016, <https://sanfranciscopolice.org/sites/default/files/Documents/PoliceDocuments/PressRelease/17-065%202016%20UCR%20Year%20End%20Stats.pdf>, accessed: March 12, 2018.

SAN FRANCISCO FIRE DEPARTMENT

The San Francisco Fire Department (SFFD), headquartered at 698 Second Street (approximately 1.4 miles northeast of the Hub Plan area), provides fire suppression and emergency medical services in the city, including the Hub Plan area.¹⁶³ In addition, several privately operated ambulance companies are authorized to provide advanced life support services. The SFFD consists of three divisions, which are subdivided into 10 battalions and 45 active stations throughout the city. The Hub Plan area is within the service area of Division 3, Battalion 2, Station 36, which is at 109 Oak Street and adjacent to the Hub Plan area (cross street Franklin Street). The Hub Plan area would be served by Station 36, with supplemental fire protection and emergency medical response services provided by Stations 1, 6, and 29.

Station 36 has one fire engine.¹⁶⁴ Station 1, which is at 935 Folsom Street (cross streets Fifth Street and Folsom Street), has one fire engine and one fire truck.¹⁶⁵ Station 6, which is at 135 Sanchez Street (cross streets Henry Street and Sanchez Street), has one fire engine and one fire truck.¹⁶⁶ Station 29, which is at 299 Vermont Street (cross street 16th Street), has one fire engine.¹⁶⁷

¹⁶¹ Ibid.

¹⁶² As stated in Section E.3, Population and Housing, the city had a population of 850,282 in 2016.

¹⁶³ San Francisco Fire Department, *Fire Department*, 2018, <http://sf-fire.org/>, accessed: February 22, 2018.

¹⁶⁴ FireDepartment.net, *Fire Equipment at San Francisco Fire Department*, 2018, <https://www.firedepartment.net/directory/california/san-francisco-county/san-francisco/san-francisco-fire-department/fire-equipment>, accessed: March 12, 2018.

¹⁶⁵ Ibid.

¹⁶⁶ Ibid.

¹⁶⁷ Ibid.

The SFFD seeks to adhere to response time standards established by the National Fire Protection Agency (NFPA). The NFPA response time standards for fire suppression incidents are:¹⁶⁸

- First-Arriving Engine Company Total Response Time: 5 minutes
- First Full-Alarm Assignment Total Response Time: 9 minutes

The NFPA response time standards for emergency medical incidents are:

- First-Responder Unit Total Response Time: 5 minutes
- Advanced Life Support Unit Total Response Time: 9 minutes

SAN FRANCISCO UNIFIED SCHOOL DISTRICT

The San Francisco Unified School District (SFUSD) operates San Francisco’s public schools. During the 2016–2017 academic year, the SFUSD managed 117 schools (75 elementary schools, 16 middle schools, 18 high schools, six alternative schools, and two continuation schools), with a total enrollment of 60,133.¹⁶⁹ The SFUSD currently uses a diversity index lottery system to assign students to schools, which is based on several factors, including parental choice, school capacity, and special program needs.¹⁷⁰ As shown in **Table E.14-2**, enrollment in SFUSD schools has been steadily increasing since 2009–2010. Projections from the 2009 SFUSD Capital Plan (FY 2010–2019) indicate that elementary enrollment will continue to grow because of the large birth cohorts of the early 2000s. High school enrollment will experience a continuous decline over the next 5 years, reflecting the declining birth trend of the 1990s.¹⁷¹

TABLE E.14-2. ENROLLMENT IN SFUSD SCHOOLS

	Years							
	2009– 2010	2010– 2011	2011– 2012	2012– 2013	2013– 2014	2014– 2015	2015– 2016	2016– 2017
Total Enrollment	55,140	55,571	56,222	56,970	57,620	58,414	58,865	60,133

Source: California Department of Education, Educational Demographics Office, *Fiscal, Demographic, and Performance Data on California’s K–12 Schools*, 2018, <https://www.ed-data.org/district/San-Francisco/San-Francisco-Unified>, accessed: February 22, 2018.

¹⁶⁸ National Fire Protection Agency, *List of NFPA Codes and Standards*, n.d., <http://www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards>, accessed: July 10, 2019.

¹⁶⁹ California Department of Education, Educational Demographics Office, *Fiscal, Demographic, and Performance Data on California’s K–12 Schools*, 2018, <https://www.ed-data.org/district/San-Francisco/San-Francisco-Unified>, accessed: February 22, 2018.

¹⁷⁰ San Francisco Unified School District, *History of the Student Assignment in SFUSD*, 2011, <http://www.sfusd.edu/zh/assets/sfusd-staff/enroll/files/SFUSD-Presentation-Handouts-1-2016-09-21.pdf>, accessed: February 22, 2018.

¹⁷¹ San Francisco Unified School District, *Capital Plan, FY 2010–2019*, September 2009, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>, accessed: February 22, 2018.

The existing private schools within the Hub Plan area include:

- The California Institute of Integral Studies, located at 1453 Mission Street.
- The Make School, located at 1547 Mission Street.
- LePort Montessori San Francisco Mid-Market, located at 50 Fell Street.

There are no existing public schools within the Hub Plan area. The existing public and private schools within a 0.25-mile radius of the Hub Plan area include:¹⁷²

- Marshall Elementary School, located at 1575 15th Street.
- Bessie Carmichael Elementary School, located at 375 Seventh Street.
- Presidio Knolls School, located at 250 10th Street.
- Chinese American International School, located at 150 Oak Street (the FAIS is located within the same building).
- Sterne School, located at 245 Valencia Street.
- Millennium School, located at 380 Fulton Street.
- Minerva Schools at KGI, located at 1145 Market Street.
- San Francisco Friends School, located at 250 Valencia Street.

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects.

Effects on public services could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness

¹⁷² San Francisco Unified School District, *San Francisco Unified School District 2016–2017*, September 2014, http://www.sfusd.edu/en/assets/sfusd-staff/enroll/files/2016-17/2016-17_schools_map.pdf, accessed: July 10, 2019.

Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect public services; therefore, they are analyzed on a project-specific level.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

The evaluation of the effects of increased demand was based on personal communication with service providers and published information regarding the various public service agencies with jurisdiction over the Hub Plan area and their service capabilities.

IMPACTS AND MITIGATION MEASURES

Impact PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would increase the demand for police service or fire protection service but not to such an extent that construction of new or expanded facilities would be required. (Less than Significant)

As discussed in the EIR project description, the Hub Plan and the two individual development projects, would incentivize new development that could generate approximately 15,700 residents and 275 new jobs over existing conditions.

POLICE PROTECTION

New residential development incentivized under the Hub Plan, including the two individual development projects, could result in increased demand for police services as a result of increases in population. Operations under the Hub Plan, including the two individual development projects, could result new development that would result in approximately 15,700 new residents in the city. This analysis assumes that all of the new residents would live in the Southern, Northern, or Tenderloin Districts, which would reduce the existing SFPD service ratios in these districts only slightly. Additional SFPD sworn officers would be needed to maintain the existing service ratios within these districts. They would be housed in existing stations and in nearby areas, depending on the locations of the service calls. In addition, the

SFPD has indicated that demands associated with the Hub Plan area could place a strain on current staffing levels, requiring additional staffing because of the increase in the number of calls for service.¹⁷³ Although the SFPD is currently experiencing a deficiency in the mandated minimum number of officers citywide (i.e., about 100 sworn officers less than the mandated number of 1,971), the SFPD is on track to reach the mandated minimum through current recruiting and hiring efforts.¹⁷⁴ In addition, the board of supervisors has passed a resolution to increase the mandated minimum staffing level to 2,200 sworn officers. Thus, it is anticipated that the additional staffing needed as a result of the Hub Plan, including the two individual development projects, would be accommodated with the SFPD's efforts to reach its mandated minimum staffing levels and would not represent an increase that would be substantial enough to warrant the construction of a new facility or expansion of an existing station.

The proposed streetscape and street network component of the Hub Plan would not separately result in any population or employment growth and, thus, would generate no independent demand for police services.

The SFPD recognizes the need to expand some facilities as the population of the city increases. Collectively, these efforts, which are not specifically in response to the Hub Plan or the two individual development projects, are designed to respond to the needs of the city on a program-wide basis and ensure that adequate response times and distributions for police officers are achieved.

The SFPD will continue to evaluate its performance, based on response times and, when appropriate, reallocate resources to meet the need for services in specific parts of the city if and when conditions warrant. Furthermore, although new development incentivized by the Hub Plan, including the two individual development projects, would increase the resident and daytime population in the area, it would not result in unplanned population growth. As discussed in Section E.3, Population and Housing, the population and housing generated by subsequent development projects under the Hub Plan would fall within ABAG projections for the city; therefore, this growth has already been factored into SFPD forecasts, and the SFPD would increase staffing accordingly. As such, the Hub Plan, including the two individual development projects, would not result in substantial adverse environmental impacts associated with the construction or alteration of police service facilities to maintain acceptable service ratios, response times, or other performance objectives. Thus, based on the foregoing, police protection service impacts as a result of the Hub Plan and the two individual development projects, would be *less than significant*.

¹⁷³ Pedrini, Chris, Captain, San Francisco Police Department, Crime Analysis Unit, email correspondence with Caroline Vurlumis, environmental planner, ICF, March 13, 2018.

¹⁷⁴ Ibid.

FIRE PROTECTION

New residential development incentivized under the Hub Plan, including the two individual development projects, would result in increased demand for fire protection services as a result of increases in population. However, the increase would be gradual and incremental as development incentivized under the Hub Plan is constructed. Increased congestion as a result of development incentivized under the Hub Plan, including the two individual development projects, could affect fire response times. In addition, as discussed above, the Hub Plan area would be served by four stations in and around the Hub Plan area, Stations 1, 6, 29, and 36. The SFFD conducts ongoing assessments of its service capacity and response times and would continue to do so in response to projected growth within the Hub Plan area and citywide over the lifetime of the Hub Plan. This assessment could identify the need for additional facilities as a result of growth within the Hub Plan area. Any new fire facilities necessary to serve the Hub Plan area would be located and constructed within San Francisco in the vicinity of the Hub Plan area, which is an urbanized and developed area. For the most part, any potentially adverse physical effects from new fire facilities would be similar to those anticipated by development under the Hub Plan (e.g., noise; archaeological impacts; air quality impacts, such as dust and other pollutants, including diesel exhaust; and temporary street closures or other vehicular traffic obstructions). Overall, the potential impacts of new fire facilities, should new facilities be required, would be similar to those associated with development under the Hub Plan. The potential impacts are either addressed in other sections of this initial study or are further analyzed and included in the EIR.

The two individual development projects are consistent with the development density established under the Hub Plan. Therefore, the two individual development projects would also not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered fire protection services.

The proposed streetscape and street network changes would not separately result in any population or employment growth and, thus, would generate no independent demand for fire services.

As such, the Hub Plan, including the two individual development projects, would not result in substantial adverse environmental impacts associated with the construction or alteration of fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives. Thus, based on the foregoing, fire protection service impacts as a result of the Hub Plan and the two individual development projects, would be *less than significant*.

Mitigation: None required.

Impact PS-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly generate school students and increase enrollment in public schools such that new or physically altered facilities would be required. (Less than Significant)

The Hub Plan, including the two individual development projects, would incentivize new residential development, which could generate students who would attend San Francisco public schools. The proposed streetscape and street network changes would not separately result in any population or employment growth and, thus, would generate no independent demand for school services.

To analyze project demand on schools, estimates of the number of students generated by new development incentivized by the Hub Plan were made using student generation rates for market-rate and below-market-rate housing units.¹⁷⁵ **Table E.14-3** identifies the number of school-aged children who would be generated by new development incentivized by the Hub Plan as a whole, including the two individual development projects, and the two individual projects individually.

TABLE E.14-3. STUDENTS GENERATED BY THE HUB PLAN AND THE TWO INDIVIDUAL DEVELOPMENT PROJECTS

Type of Unit	Total Units	Student Generation Rate	Estimated Student Growth Due to Project
Hub Plan – Onsite Units, including 30 Van Ness Avenue and 98 Franklin Street			
Market-Rate Units	6,075	0.10	608
Below-Market-Rate ^a Units	2,025	0.25	506
		<i>Total</i>	1,114
30 Van Ness Avenue – Onsite Units			
Market-Rate Units	457	0.10	46
Below-Market-Rate Units	153	0.25	38
98 Franklin Street – Onsite Units			
Market-Rate Units	283	0.10	28
Below-Market-Rate Units	62	0.25	15

Source: Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, February 16, 2018, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed February 26, 2018.

^a. The number of below-market-rate units is based on the percentage of below-market-rate units for the 30 Van Ness Avenue Project (25 percent), which is the highest of the two development projects.

¹⁷⁵ Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, February 16, 2018, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed: July 10, 2019.

The resulting increase in the number of students attributable to development under the 30 Van Ness Avenue Project would be 84 students and 43 students under the 98 Franklin Street Project. Overall, the Hub Plan, including for the two development projects, would add approximately 1,114 students to the Hub Plan area. It is conservatively assumed that students would be new to the district and would attend public schools, though it is likely that a portion of the students would already be enrolled within the SFUSD or would attend a private school. Under the diversity index lottery system, a student generated by subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, may attend a SFUSD school that is not his or her nearest school as long as capacity exists. Thus, it is not assumed that all students generated by subsequent development projects incentivized by the Hub Plan would attend the nearest school. The potential 1,114 additional K–12 students that could result from subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, represent an increase of approximately 1.9 percent in district enrollment compared with the 2016–2017 academic year.

The SFUSD would have adequate capacity within its existing facilities to accommodate new students generated by subsequent development projects incentivized by the Hub Plan as well as the two individual development projects. Between 2000 and 2010, overall enrollment in the SFUSD experienced a large decline.¹⁷⁶ Today, several schools within the SFUSD are still underutilized, with more classrooms district-wide than needed.¹⁷⁷ In addition, an increase in student population would occur gradually, and a portion of the new students would be expected to attend private schools. Furthermore, the Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50, authorizes school districts to levy developer fees to finance the construction or reconstruction of school facilities. These fees are intended to address increased educational demands on the school district resulting from new development. Public school districts can, however, impose higher fees than those established by the State Allocation Board, provided they meet the conditions outlined in the act. Private schools are not eligible for fees collected, pursuant to Senate Bill 50.

Local jurisdictions are precluded under state law (Senate Bill 50) from imposing enrollment-related mitigation beyond the school impact fees. The collection of the fees, therefore, fully mitigates any potential effects on schools associated with additional development that could result from implementation of the Hub Plan, including the two individual development projects. Although subsequent development projects incentivized by the Hub Plan as well as

¹⁷⁶ San Francisco Unified School District, *Capital Plan FY 2010–2019*, September 2009, pp. 19–20, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>, accessed: November 18, 2018.

¹⁷⁷ San Francisco Unified School District, *Capital Plan FY 2010–2019*, September 2009, pp. 19–20, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>, accessed: November 18, 2018.

the two individual development projects, could increase the resident population and the potential student enrollment in the SFUSD, the payment of fees mandated under Senate Bill 50 and prescribed by the statute, and the fact that there is existing capacity in the SFUSD system, would minimize potential impacts resulting from additional students. In addition, for the reasons described above, the SFUSD would have adequate capacity within its existing facilities to accommodate new students generated by subsequent development projects incentivized by the Hub Plan as well as the two individual development projects. Although it is highly unlikely that new schools would be required as a result of implementation of the Hub Plan or the two individual development projects, should a future school be required to accommodate population increases, it is likely that new school development would be sited on an in-fill site in an area of the city that is well served by transit. In addition, any potentially significant effects from the construction of such facilities would be similar to those anticipated with development under the Hub Plan, such as noise, archaeological, air quality impacts (e.g., emissions of dust and other pollutants, including diesel exhaust); temporary street closures; or other traffic obstructions. Therefore, construction of a new school facility would not result in new significant impacts that were not already analyzed and disclosed in the initial study or EIR. Moreover, the EIR identifies a number of significant impacts, including those that cannot be mitigated to a less-than-significant level, from growth in the Hub Plan area. Construction of new school facilities, should it be warranted, could contribute incrementally to such Hub Plan-level impacts. Should such facilities be constructed, they would be subject to applicable mitigation measures identified in the EIR, just as any other physical development in the Hub Plan area would be. Therefore, construction of new school facilities would not result in new significant impacts that were not already analyzed and disclosed in this initial study and EIR. The impact would be *less than significant*.

Mitigation: None required.

Impact C-PS-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, combined with past, present, and reasonably foreseeable future projects in the vicinity, would not result in a cumulatively considerable contribution to cumulative impacts on police, fire, and school district services such that new or physically altered facilities, the construction of which could cause significant environmental impacts, would be required in order to maintain acceptable levels of service. (Less than Significant)

The cumulative geographic context for public services consists of growth projections for the Hub Plan area in addition to citywide growth projections under Plan Bay Area.

Population and employment growth associated with implementation of other development projects in the city would increase the number of service calls and could create a need for additional facilities to maintain existing SFPD service levels. On June 23, 2015, the board of supervisors passed Resolution No. 248-15, which increased the mandated minimum staffing

level to 2,200 sworn officers.¹⁷⁸ This increase would bring the voter-approved minimum into line with San Francisco's current population.¹⁷⁹ Furthermore, police boundaries are required to be analyzed every 10 years, with consideration given to workload, district boundaries, response times, and facilities, per board of supervisors legislation (Ordinance 243-06).¹⁸⁰ The latest analysis of police boundaries was conducted in 2015. The 2015 District Station Boundary Analysis Report addressed issues related to the impact of a significant number of residential, commercial, and transportation developments in the eastern and southern areas in the city.¹⁸¹ The increase in the minimum level of sworn offices and the analysis of police boundaries were designed to respond to the needs of the city on a program-wide basis and ensure that adequate response times and distributions of police officers would be achieved. Cumulative development in the project area may incrementally increase demand for police services but not beyond levels anticipated and planned for by SFPD. For these reasons, development under the Hub Plan, including the two individual development projects, in combination with past, present, and reasonably foreseeable future projects, would not result in the need for new or physically altered police facilities. The impact would be less than significant.

Subsequent development projects incentivized by the Hub Plan, including the two individual development projects, would add to the demand for fire response and emergency medical services within Battalion 2. However, the cumulative impact of the Hub Plan and two individual development projects, combined with other development projects in the city, would not be considerable. The SFFD has not identified a citywide service gap. Furthermore, the increase in demand for fire and emergency medical services as a result of subsequent development projects incentivized by the Hub Plan and the two individual development projects, and other development projects would not be beyond the level anticipated and planned for by the SFFD. If necessary, Stations 1, 6, and 29, along with other nearby stations, could respond to calls in the event that Station 36 personnel and equipment are unavailable or require additional support. For these reasons, the contribution of the Hub Plan and the two individual development projects to cumulative demand on fire and emergency medical services citywide would not be cumulatively considerable. The proposed project, in combination with

¹⁷⁸ San Francisco Board of Supervisors, *Resolution No. 248-15, Establishing a Population-Based Police Staffing Policy*, June 23, 2015, <http://sfbos.org/ftp/uploadedfiles/bdsupvrs/resolutions15/r0248-15.pdf>, accessed: March 5, 2018.

¹⁷⁹ Ibid.

¹⁸⁰ San Francisco Board of Supervisors, *Ordinance No. 243-06, Boundaries of Police Department District Station*, August 7, 2006, <http://sfbos.org/ftp/uploadedfiles/bdsupvrs/ordinances06/o0243-06.pdf>, accessed: July 10, 2019.

¹⁸¹ Public Safety Strategy Group, LLC., *District Station Boundary Analysis Report*, March 3, 2015, <http://www.publicsafetystrategies.com/wp-content/uploads/2015/03/SFPD-District-Station-Boundary-Analysis-Report-March-2015.pdf>, accessed: July 10, 2019.

other development, would have a less-than-significant cumulative impact on fire and emergency services.

The SFUSD has experienced steady increases in enrollment since 2009–2010. Pursuant to Senate Bill 50, individual project applicants would be required to pay school impact fees, which were established to offset potential impacts from new development on school facilities. Under the SFUSD's diversity index lottery system, new students from the Hub Plan area may attend schools elsewhere in the city. Considering the current underutilized nature of existing educational facilities citywide, including the Hub Plan area, as well as the fact that other development projects would also be required to pay school impacts fees, development incentivized by the Hub Plan, including the two individual development projects, in combination with past, present, and reasonably foreseeable future projects, would not result in the need for new or physically altered school facilities. The impact would be less than significant.

The proposed streetscape and street network changes would not separately result in any population or employment growth and, thus, would generate no independent demand for police, fire, or school services. The proposed streetscape and street network changes would therefore not contribute to a cumulative impact.

Mitigation: None required.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
15. BIOLOGICAL RESOURCES:					
Would the project:					
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Hub Plan area is completely developed; only ornamental landscape vegetation is present. Ornamental vegetation is not a sensitive natural community, as indicated by the California Department of Fish and Wildlife (CDFW) Natural Communities List.¹⁸² In addition, because the Hub Plan area is completely developed, federally protected wetlands and other waters of the United States are not present. The Hub Plan area is also not within the boundaries of a habitat conservation plan, natural community conservation plan, or other adopted conservation plan. Therefore, topics 15(b), 15(c), and 15(f) are not applicable to any of project’s components, including the Hub Plan, the proposed streetscape and street network changes, the two individual development projects, or the Hub HSD.

¹⁸² California Department of Fish and Wildlife, *Natural Communities List*, 2018b, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>, accessed: July 10, 2019.

SETTING

The Hub Plan area, including the two individual development project sites at 30 Van Ness Avenue and 98 Franklin Street and the Hub HSD, is fully developed and characterized by dense urban development, overhead freeways, and surface streets, interspersed by small landscaped areas and street trees. Landscape vegetation includes several non-native ornamental tree and shrub species such as London plane (*Plantanus hybrida*), ginko (*Ginko biloba*), strawberry tree (*Arbutus uendo*), olive (*Olea europaea*), red gum eucalyptus (*Eucalyptus camaldulensis*), Canary Island date palm (*Phoenix canariensis*), Indian laurel fig (*Ficus microcarpa*), purple-leaf plum (*Prunus cerasifera*), and ornamental cherry (*Prunus serrulata*) trees. Natural land cover and communities are absent from the Hub Plan area. The Hub Plan area elevation ranges from approximately 25 to 100 feet above mean sea level.¹⁸³

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on biological resources could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect biological resources; therefore, they are analyzed on a project-specific level.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR

¹⁸³ U.S. Geological Survey, *San Francisco North 7.5-minute Quadrangle Map*, 1956.

and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

The study area for biological resources is the Hub Plan area plus a 250-foot buffer. The area for direct impacts is the environmental footprint of the Hub Plan area, including the two individual development project sites at 30 Van Ness Avenue and 98 Franklin Street. The area for indirect impacts includes the environmental footprint of the Hub Plan area plus the 250-foot buffer.

The following analysis is based on information from the following data sources:

- Background research from the California Natural Diversity Database (CNDDDB)¹⁸⁴ species list query regarding the San Francisco North U.S. Geological Survey (USGS) 7.5-minute quadrangle
- Background research from the California Native Plant Society (CNPS)¹⁸⁵ species list query regarding the San Francisco North USGS 7.5-minute quadrangle
- Background research from the U.S. Fish and Wildlife Service (USFWS)¹⁸⁶ species list query regarding the Hub Plan area and surrounding 250 feet
- Hub Plan area photographs
- San Francisco Tree Inventory (Street Tree Map)¹⁸⁷
- Identification of waters and wetlands using aerial photography and existing water/wetland inventory data (such as the National Wetland Inventory)¹⁸⁸
- Aerial imagery on Google Earth¹⁸⁹

¹⁸⁴ California Department of Fish and Wildlife, *CNDDDB RareFind Records Search of San Francisco North U.S. Geological Survey 7.5-minute Quadrangles*, RareFind Version 5, 2018, <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>, accessed: February 20, 2018.

¹⁸⁵ California Native Plant Society, *Online Inventory of Rare and Endangered Plants of California*, 2018, http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm, accessed: February 20, 2018.

¹⁸⁶ U.S. Fish and Wildlife Service, *List of Endangered and Threatened Species that May Occur in the Proposed Project Location and/or May Be Affected by the Proposed Project*, 2018, <https://ecos.fws.gov/ipacl/>, accessed: February 20, 2018.

¹⁸⁷ Street Tree Map, *San Francisco Tree Inventory*, 2019, <https://data.sfgov.org/City-Infrastructure/Street-Tree-Map/337t-q2b4>, accessed: July 17, 2019.

¹⁸⁸ U.S. Fish and Wildlife Service, *National Wetland Inventory*, 2018, updated: February 1, 2018, <https://www.fws.gov/wetlands/>, accessed: July 10, 2019.

¹⁸⁹ Google Earth, *Market Street/South Van Ness Avenue, 37°46'30.26"N and 122°25'9.65"W*, 2018, accessed: July 11, 2019.

IMPACTS AND MITIGATION MEASURES

Impact BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. (Less than Significant with Mitigation)

Queries of the USFWS,¹⁹⁰ CDFW CNDDDB,¹⁹¹ and CNPS¹⁹² regarding species with potential to occur in the region were considered in this analysis. Structures in the Hub Plan area and surrounding region could support one special-status bird species, American peregrine falcon (*Falco peregrine anatum*), a fully protected species. Other special-status bird species may forage in the Hub Plan area, but nesting activities are most likely absent because of the lack of vegetation and dominant urban character of the Hub Plan area and adjacent surroundings. Structures with cavities and openings (e.g., building vents, eaves, roof or wall openings, open windows) provide suitable habitat for special-status bat roosts, namely Townsend’s big-eared bat (*Corynorhinus townsendii*), hoary bat (*Lasiurus cinereus*), and western red bat (*Lasiurus blossevillii*), all of which are California species of special concern and ranked by the Western Bat Working Group as species with “moderate” or “high” designation statuses under CEQA.¹⁹³ Other non-special-status bat species could also roost in structure cavities. Structures in the Hub Plan area and surroundings could support nesting migratory birds (e.g., cliff swallow [*Petrochelidon pyrrhonota*] and black phoebe [*Sayornis nigricans*]), and landscape vegetation offers suitable nesting substrate for other nesting migratory birds (e.g., Lawrence’s goldfinch [*Spinus lawrencei*]). Individual projects covered under the Hub Plan, including improvements to the streetscape and street network, would be required to comply with the California Fish and Game Code section 3500 et al., including sections 3503, 3503.5, 3511, and 3513, which provide that it is unlawful to take or possess any migratory nongame bird or needlessly destroy nests of birds, except as otherwise outlined in the code.

¹⁹⁰ California Native Plant Society, *Online Inventory of Rare and Endangered Plants of California*, 2018, http://cnps.site.aplus.net/cgi-bin/inv/inventory.cgi/Html?item=checkbox_9.htm, accessed: February 20, 2018.

¹⁹¹ California Department of Fish and Wildlife, *Natural Communities List*, 2018b, <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>, accessed: February 26, 2018.

¹⁹² California Department of Fish and Wildlife, *CNDDDB RareFind Records Search of San Francisco North U.S. Geological Survey (USGS) 7.5-minute Quadrangles*, RareFind Version 5, 2018, <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>, accessed: February 20, 2018.

¹⁹³ Western Bat Working Group, *Species Matrix Based on the Western Bat Working Group Workshop Held in Reno, Nevada*, February 9–13, 1998, 2018, <http://wbwg.org/matrices/species-matrix/>, accessed: July 10, 2019.

Demolition of structures and the removal of trees and shrubs, accompanied by noise and vibration from activities associated with subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, could affect protected species, if present. Although the majority of existing trees would not be immediately affected by either development projects or street improvements, it is virtually certain that some trees would be removed during the lifetime of the Hub Plan, including for streetscape and street network improvements. In addition, trees would be removed during construction of the two individual development projects. Removal of trees with active nests, as well as construction activities adjacent to such trees nesting during the bird season (March 1 through August 31), could result in nest destruction or injury or mortality for nestlings. Requirements for bird-safe building standards are discussed below under Impact BI-2.

Impacts on nesting special-status birds, American peregrine falcon nests or individuals, and special-status bat roosts could be significant. Mitigation Measures M-BI-1 and M-BI-2 would be implemented to avoid impacts on nesting special-status birds, American peregrine falcon nests or individuals, and the roosts of special-status bat species and would reduce impacts on nesting special-status birds, American peregrine falcon nests or individuals, and the roosts of special-status bat species to *less than significant with mitigation*.

MITIGATION MEASURES

Mitigation Measures M-BI-1 and M-BI-2 apply to subsequent development projects under the Hub Plan that would result in greater development density within the Hub Plan area compared with what is allowed under existing zoning, both due to the proposed revisions to height and bulk districts at 18 sites and proposed revisions to the zoning districts throughout the southern portion of the Hub Plan area. These mitigation measures would also apply to any of the project's components, including the streetscape and street network improvements, the two individual development projects, and any projects approved under the Hub HSD.

M-BI-1: *California Fish and Game Code Compliance to Avoid Active Nests during Construction Activities.* For any project activities that result in removal or disturbance of existing trees through adjacent construction activities, tree project applicant(s) shall avoid impacts on nesting birds through compliance with the relevant California Fish and Game Code by implementing one or more of the following:

- Undertaking tree removal during the non-breeding season (i.e., September through January 15) to avoid impacts on nesting birds or conducting preconstruction surveys for work scheduled during the breeding season (March through August).
- Conducting, by a qualified biologist, preconstruction surveys no more than 15 days prior to the start of work during the nesting season to determine if any

birds are nesting in the vegetation to be removed or in the vicinity of the construction to be undertaken.

- Avoiding any nests identified by a qualified biologist and establishing a construction-free buffer zone designated by a qualified biologist, which will be maintained until nestlings have fledged.

M-BI-2: Avoid Impacts on Special-status Bat Roosts during Construction Activities.

Project applicant(s) shall avoid impacts on maternity colonies or hibernating bats if identified by avoiding structural demolition between April 1 and September 15 (maternity season) and between October 30 and March 1 (hibernation) to the extent feasible. Bat roost avoidance shall be accomplished by the following steps:

- The project applicant(s) shall retain a qualified biologist to conduct a bat habitat assessment of the structures proposed for demolition. The assessment may be conducted at any time of year but should be conducted during peak bat activity periods (March 1–April 15, September 1–October 15) if possible. Qualified biologists shall have knowledge of the natural history of the species that could occur and sufficient experience related to determining bat occupancy in buildings and bat survey techniques. The biologist shall examine both the inside and outside of accessible structures for potential roosting habitat as well as routes of entry to the structures. If the biologist concludes that the building does not provide suitable bat roosting habitat, no further actions are necessary and work may commence. If the results of the survey are inconclusive or the biologist identifies potential roost sites, the following steps shall be implemented:
 - The project applicant(s) shall implement measures under the guidance of a qualified bat biologist to exclude bats from using the building as a roost site, such as sealing off entry points with one-way doors or enclosures. Installation of exclusion devices shall occur before maternity colonies establish or after they disperse, generally between March 1 and 30 or between September 15 and October 30, to preclude bats from occupying a roost site during demolition. Exclusionary devices shall be installed only by or under the supervision of an experienced bat biologist.
 - The qualified biologist shall conduct a follow-up survey to confirm that the exclusion measures have excluded bats. If follow-up surveys determine that bats are still present, the biologist shall modify the exclusion measures to effectively exclude bats from the structure. Following successful exclusion of the bats and confirmation of their absence by the biologist, demolition or structural modification shall commence.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The implementation of Mitigation Measures M-BI-1 and M-BI-2 would comply with CEQA requirements by avoiding impacts on nesting special-status birds, American peregrine falcon nests or individuals, and the roosts of special-status bat species. Implementation of this mitigation measure would reduce impacts on nesting special-status birds, American peregrine falcon nests or individuals, and the roosts of special-status bat species to a less-than-significant level.

Impact BI-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. (Less than Significant)

The Hub Plan area, including the sites for project-specific development at 30 Van Ness Avenue and 98 Franklin Street, is completely developed and surrounded by dense urban development. Furthermore, the Hub Plan area is not within any known regional wildlife movement corridors or any other sensitive biological areas, as indicated by the USFWS Critical Habitat Portal or the CDFW Biogeographic Information and Observations System. The Hub Plan area is not known to contain native wildlife nursery sites or Urban Bird Refuges,¹⁹⁴ and it lacks features (e.g., parks located within 300 feet of water bodies) with potential to be considered Urban Bird Refuges. Refer to Impact BI-1 for a discussion of the Hub Plan's potentially significant impacts on nesting American peregrine falcons, migratory birds, and roosting bats.

San Francisco Bay, the Pacific Ocean, and adjacent salt marshes provide habitat for several bird species. The Hub Plan, including the two individual development projects, are within the Pacific Flyway, a north/south-oriented path stretching from Alaska to Patagonia, that many species of birds migrate along as they travel between breeding and overwintering locations. Bird strikes on glass windows, which are often not readily obvious to birds because of visually disorienting lights, contribute significantly to avian mortality in urban areas, estimated to be as high as 1 to 5 percent of all bird deaths annually.¹⁹⁵ The likelihood for bird strikes generally increases as building sizes and glass surfaces increase. Bird strikes are exacerbated by artificial nocturnal lighting emanating from large buildings, particularly for nocturnal migrants and

¹⁹⁴ San Francisco Planning Department, *Urban Bird Refuge Data Viewer*, 2011, <https://data.sfgov.org/Energy-and-Environment/Urban-Bird-Refuge/v8rh-bhzp/data>, accessed: July 10, 2019.

¹⁹⁵ San Francisco Planning Department, *Standards for Bird-Safe Buildings*, 2011, <http://sf-planning.org/standards-bird-safe-buildings>, accessed: July 10, 2019.

migrating songbirds.¹⁹⁶ This is of particular concern with the Hub Plan area's location within the Pacific Flyway and near biologically diverse features such as San Francisco Bay, the Pacific Ocean, adjacent salt marshes, and other wetlands that naturally attract migrating birds.

Larger buildings with larger windows constructed within the Hub Plan area, as well as increased levels of light pollution associated with new structures and street network improvements, are expected to result in bird mortalities, including special-status species, above the level currently caused by existing structures. However, structure designs and lighting modifications within the Hub Plan area would be required to comply with the department's *Standards for Bird-Safe Buildings*, adopted July 14, 2011, which would reduce the potential for bird strikes. The standards include guidelines for the type and use of glass, façade treatments, wind generators and grates, and lighting treatments. Individual projects incentivized by the Hub Plan as well as the two individual development projects would be subject to the standards and therefore would result in *less-than-significant* hazard impacts on bird species.

The standards identify location-specific hazards and building-feature hazards, which are the same hazards identified in Planning Code section 139.107; required treatments are generally as specified in section 139. Location-specific hazards apply to buildings in, or within 300 feet of, an Urban Bird Refuge or with a direct line of sight to a such a refuge, including open spaces 2 acres and larger dominated by vegetation, including vegetated landscaping, forest, meadows, grassland, or wetlands, or open water. Section 139 requires 90 percent of glazing in the "Bird Collision Zone" (60 feet above grade, plus 60 feet above an adjacent vegetated roof 2 acres or larger) to be treated (fritted, stenciled, frosted, or covered with netting, screens, grids, or bird-visible ultraviolet patterns). Lighting must also be minimized, and any wind generators must comply with department requirements, including any monitoring of wildlife impacts that the department may require.

In addition to buildings in and near an Urban Bird Refuge, section 139 applies similar standards to certain building features citywide, including free-standing glass walls, wind barriers, skywalks, balconies, and greenhouses on rooftops that have unbroken glazed segments 24 square feet in size or larger.

For location-specific hazards involving new buildings or additions to existing buildings, the following requirements apply:

¹⁹⁶ Ogden, L.E., *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds, Special Report for the World Wildlife Fund and the Fatal Light Awareness Program*, September 1996, www.flap.org, accessed: July 10, 2019.

- **Façade Treatments:** Bird-safe glazing treatment is required such that the Bird Collision Zone consists of no more than 10 percent untreated glazing. Building owners are encouraged to concentrate permitted transparent glazing on the ground-floor and lobby entrances to enhance visual interest for people walking.
- **Wind Generators:** Sites must not feature horizontal access windmills or vertical access wind generators that do not appear solid.
- **Lighting Design:** A minimal amount of lighting shall be used. Lighting shall be shielded. Up-lighting shall not be used, and event searchlights should not be permitted on the property.

For building-feature hazards involving new buildings and new additions to existing buildings, the entirety of the hazard must be made bird safe through treatments such as fritting, netting, permanent stencils, frosted glass, exterior screens, physical grids placed on the exterior of the glazing, or ultraviolet patterns that are visible to birds. Vertical elements of the window patterns should be at least ¼ inch wide, with a minimum spacing of 4 inches, or have horizontal elements at least ⅓ inch wide, with a maximum spacing of 2 inches, according to the standards.

The standards prescribe the use of a checklist to educate project sponsors and their future tenants on potential hazards and applicable treatments. They also prescribe treatments for designated historic buildings meet the Secretary of the Interior's Standards for Rehabilitation; however, they exempt residential buildings less than 45 feet in height with limited glass facades. The standards also recommend educational guidelines and voluntary programs.

Avian collisions are a potentially significant impact because they may affect special-status bird species. Furthermore, as more research is undertaken with respect to bird collisions, the findings raise the possibility that these collisions could be implicated in, and contributors to, declines in some bird populations, possibly below self-sustaining levels, or the substantial elimination of some bird communities in certain locales.

The existing environment is one of high ambient disturbance due to human activity and noise generated by city and roadway multi-modal traffic. Therefore, nesting by raptors, such as peregrine falcon, is not expected to be common within the Hub Plan area, but raptors may use the area for foraging purposes. However, changes in building heights and density, as well as construction of new buildings in the current prevailing architectural style, which is often characterized by large glazed expanses, could have a potentially adverse effect on raptors, as well as resident and migratory passerines, by increasing the risk for avian collisions with buildings.

Compliance with Planning Code section 139 and the adopted Standards for Bird-Safe Buildings would ensure that potential impacts related to bird hazards would be *less than significant*.

Mitigation: None required.

IMPROVEMENT MEASURES

Because no significant impacts were identified, no mitigation is required. However, the following improvement measure is identified to reduce potential effects on birds from lighting during hours of darkness within the Hub Plan area. Implementation of this measure would further reduce the impacts on resident and migratory birds, and would apply to the Hub Plan, two individual development projects, and the Hub HSD.

I-BI-2: *Lighting Minimization during Hours of Darkness.* In compliance with the voluntary San Francisco Lights Out Program, the department could encourage buildings developed pursuant to the Hub Plan and the Hub HSD to implement bird-safe building operations to prevent or minimize bird-strike impacts, including, but not limited to, the following measures:

- Reduce building lighting from exterior sources by:
 - Minimizing the amount and visual impact of perimeter lighting and façade uplighting and avoiding up-lighting on rooftop antennae and other tall equipment as well as of any decorative features
 - Installing motion-sensor lighting
 - Using low-wattage fixtures to achieve required lighting levels
- Reduce building lighting from interior sources by:
 - Dimming lights in lobbies, perimeter circulation areas, and atria
 - Turning off all unnecessary lighting by 11 p.m. through sunrise, especially during peak migration periods (mid-March to early June and late August to late October)
 - Using automatic controls (motion sensors, photo-sensors, etc.) to shut off lights in the evening when no one is present
- Encouraging the use of localized task lighting to reduce the need for more extensive overhead lighting
 - Scheduling nightly maintenance to conclude by 11 p.m.
 - Educating building users about the dangers of lighting to birds during hours of darkness

Implementation of Improvement Measure I-BI-2 would further reduce the less-than-significant impacts related to bird strikes. The effect would be *less than significant*.

Impact BI-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (Less than Significant)

The department, building department, and public works require compliance with San Francisco Public Works Code sections 8.02–8.11, regulating the removal of protected trees within San Francisco. Sections 8.02–8.11 of the code require disclosure and the protection of significant, landmark, and street trees (collectively referred to hereafter as “protected trees”) on public and private property. Landmark trees are absent from the Hub Plan area.¹⁹⁷ Significant trees are defined as trees that are more than 20 feet tall with a 15-foot-wide canopy or a 12-inch trunk diameter at 4.5 feet above grade on private land within 10 feet of the public right-of-way or under the jurisdiction of the public works. A street tree is any tree within the public right-of-way.

Removal of a significant tree or street tree requires a public works tree removal permit, and the department requires a Tree Planting and Protection Checklist to be included in all permit applications for projects that could affect a protected tree. If tree relocation is impracticable, tree replacement is required, consistent with planning code. Tree removals resulting from subsequent development projects incentivized by the Hub Plan and street improvements within the Hub Plan area as well as the two individual development projects would require relocation or replacement, which would avoid a net loss of trees and maintain the urban forest resources in the Hub Plan area. By applying for tree removal permits and replacing trees in accordance with established regulations and plans, the Hub Plan’s proposed streetscape and street network changes would not conflict with the City’s local tree ordinance.

The development project at 30 Van Ness Avenue may remove and replace up to nine street trees; the project at 98 Franklin Street may remove three street trees but would retain two trees currently on the adjacent sidewalk and streetscape along Market Street. Both individual development projects would comply with City tree replacement requirements by planting, at a minimum, up to eight new street trees at 30 Van Ness Avenue (17 total) and 10 new street trees at 98 Franklin Street (15 total). Individual projects may plant additional trees, but the minimum number of replacement trees would be as provided above.

Because the project’s components, including subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, would comply with public works permit requirements and the planning code, the impact would be *less than significant*.

Mitigation: None required.

¹⁹⁷ San Francisco Department of the Environment, *Landmark Trees*, 2018, <https://sfenvironment.org/landmark-trees>, accessed: July 5, 2019.

Impact C-BI-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts on biological resources. (Less than Significant with Mitigation)

To consider the full context of surrounding projects and actions as well as the contribution of the Hub Plan, including the individual development projects, the biological cumulative impact study area includes the greater downtown San Francisco area. The subsequent development projects incentivized by the Hub Plan would not adversely affect biological resources; however, vegetation removal and structure demolition or modification could result in potential impacts on nesting migratory and special-status birds and roosting bats. With implementation of the relevant mitigation measures described above (M-BI-1 and M-BI-2) and compliance with the City of San Francisco Standards for Bird-Safe Buildings (I-BI-1), subsequent development projects incentivized by the Hub Plan would have less-than-significant impacts on sensitive species. Tree removals would require permits through public works, and subsequent tree replacement would occur per the planning code and the Better Streets Plan. Development projects in downtown San Francisco would be required to comply with the same laws and regulations. Therefore, with implementation of mitigation measures, no significant cumulative effects on biological resources would result from development within the Hub Plan area combined with the effects of development projects in the greater downtown San Francisco area. The impact would be reduced to a *less-than-significant* level.

Mitigation Measures M-BI-1, California Fish and Game Code Compliance to Avoid Active Nests during Construction Activities, and M-BI-2, Avoid Impacts on Special-status Bat Roosts during Construction Activities.

Topics:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact	Not Applicable
16. GEOLOGY AND SOILS. Would the project:					
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in onsite or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Under the California Supreme Court decision *California Building Industry Association v. Bay Area Air Quality Management District* (2015), impacts of the environment on the project do not constitute an impact unless the project exacerbates the environmental hazards or conditions that already exist. In the case that a project would exacerbate environmental hazards or conditions, the project’s impact on the environment would drive impact analysis, not the impact of the environment on the project. This is further discussed under Approach to Analysis.

Development under the Hub Plan, development incentivized under the Hub HUD, and project-specific development at 30 Van Ness Avenue and 98 Franklin Street would connect to the combined sewer system which is the wastewater conveyance system for San Francisco and would not use septic tanks or other on-site land disposal systems for sanitary sewage. In addition, the proposed streetscape and street network changes would not produce any additional wastewater. Therefore, initial study topic 16(e) is not applicable to any of the project’s components, including the Hub Plan, the proposed streetscape and street network changes, project-specific development at 30 Van Ness Avenue and 98 Franklin Street, or the Hub HSD.

SETTING

The Hub Plan area has relatively flat topography, sloping gently to the southeast, with elevations from 70 to 10 feet San Francisco City Datum.^{198,199} Because of its topography, the Hub Plan area is not subject to landslide.^{200,201}

Surficial deposits throughout the Hub Plan area are artificial fill (Qaf) and dune sand (Qd), with undifferentiated surficial deposits (Qu), Franciscan mélange (fsr), and serpentinite (sp) in the vicinity of the Hub Plan area (**Figure E.16-1**).²⁰² The area is underlain by Quaternary-age sediments deposited in the last 1.8 million years, including (from youngest to oldest) fill, dune sand, marsh deposits, Colma formation, and Old Bay Clay.^{203,204,205,206} Bedrock beneath San Francisco consists of sedimentary and volcanic rocks of the Jurassic- and Cretaceous-age (approximately 65 to 213 million years old) Franciscan formation. Based on reports prepared for planned projects, as described in this section, in the general project area, geologic units underlying the Hub Plan area are described as follows:

- **Fill (Historic)**—The fill underlying the Hub Plan area consists of 1.5 to 15 feet of loose to medium dense sand and silty sand and may locally contain construction debris such as brick and concrete fragments from the 1906 earthquake and fire.
- **Dune sand (Holocene to Pleistocene)**—The deposit underlying the fill is a fine-grained, wind-deposited, medium dense to dense sand referred to as dune sand, reaching to depths of 6.5 to 35 feet across the Hub Plan area.

¹⁹⁸ San Francisco City Datum is equal to 8.616 feet National Geodetic Vertical Datum or mean sea level.

¹⁹⁹ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²⁰⁰ California Geological Survey, *Earthquake Zones of Required Investigation: San Francisco North Quadrangle*, 2000, http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/SAN_FRANCISCO_NORTH_EZRIM.pdf, accessed: February 28, 2018.

²⁰¹ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

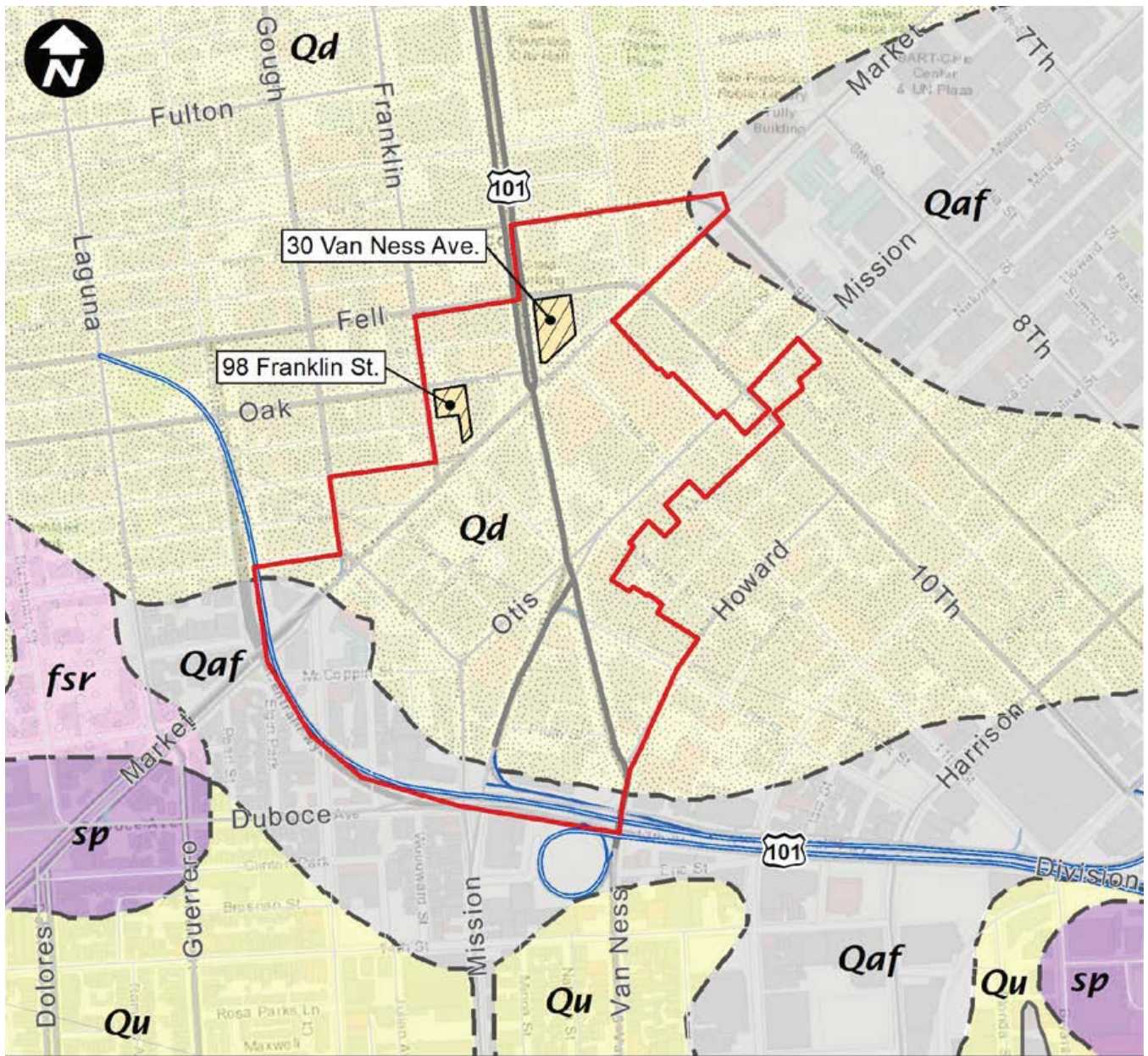
²⁰² In Figure E.16-1, *geologic contact* refers to a known interface between geologic units. *Geologic contact, approx. located*, refers to an interface between geologic units that has been approximately mapped.

²⁰³ Ibid.

²⁰⁴ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

²⁰⁵ Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation, 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, July 3, 2012, San Francisco, CA.

²⁰⁶ Schlocker, Julius, *Geology of the San Francisco North Quadrangle, California*, 1974, <https://pubs.er.usgs.gov/publication/pp782>, accessed: February 21, 2018.



LEGEND

- The Hub Plan Area
- Individual Development Project Sites

Geology

- Qaf - Artificial Fill
- Qd - Dune Sand
- Qu - Undifferentiated Surficial Deposits
- fsr - Franciscan Melange
- sp - Serpentinite
- Geologic contact, certain
- Geologic contact, approx. located



Geology Source: USGS (2000) Geologic map and map database parts of Marin, San Francisco, Alameda, Contra Costa, and Sonoma Counties, California, MF-2337.

Source: Geotechnical Consultants, Inc. 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

**Figure E.16-1
 Geology in the Hub Plan Area**

ICF Graphics... 0070017 (4-25-2019)

- **Marsh deposits (Holocene)**—The deposit underlying the dune sand is a compressible marsh deposit, consisting of soft to hard silty clay with sand, 5 to 12 feet thick.
- **Colma Formation (Pleistocene)**—Underlying the marsh deposit is the Colma formation, consisting of dense to very dense sand with variable silt and stiff to hard clay content and clay with variable sand content. It extends to approximately 200 feet below ground surface (bgs). Old Bay Clay (Pleistocene) or bedrock (Franciscan formation of Jurassic or Cretaceous age) underlies the Colma formation.

Depth to groundwater ranges from 10 to 23 feet bgs and can be expected to vary seasonally.²⁰⁷ The depths correspond to saturated conditions in the soft to loose native deposits of marsh deposits and dune sand.

Artificial fill, dune sand, and Colma formation are not expansive soils. These are sandy soils; expansive soils have a clay component. The amount and type of clay material in a soil affect the volume of expansive soils.²⁰⁸ Marsh deposits have potential to be expansive; however, because they are generally below the groundwater table and thus permanently saturated, they do not undergo a shrink-swell cycle.

Major active earthquake faults in the area are the North San Andreas, San Gregorio, Hayward, and Calaveras faults, all of which are associated with a moment magnitude of 7 or greater (**Figure E.16-2**).^{209, 210, 211, 212} Of these, the North San Andreas, Hayward, and Calaveras faults all have a likelihood of 25 percent or greater of experiencing a magnitude 6.7 or greater earthquake between 2014 and 2043.²¹³ Overall, there is a 72 percent likelihood of an earthquake of magnitude 6.7 or greater occurring in the San Francisco Bay Area over the same period. Seismic ground shaking could lead to seismic densification of dune sand deposits underlying the Hub Plan area, potentially causing settlement of soils, including differential settlement.²¹⁴

²⁰⁷ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²⁰⁸ Natural Resources Conservation Service, *Web Soil Survey*, 2018, <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>, accessed: July 11, 2019.

²⁰⁹ *Mean characteristic moment magnitude* is a way of measuring the strength of a characteristic earthquake, or a rupture event that repeats regularly, on a fault in terms of energy released during the seismic event.

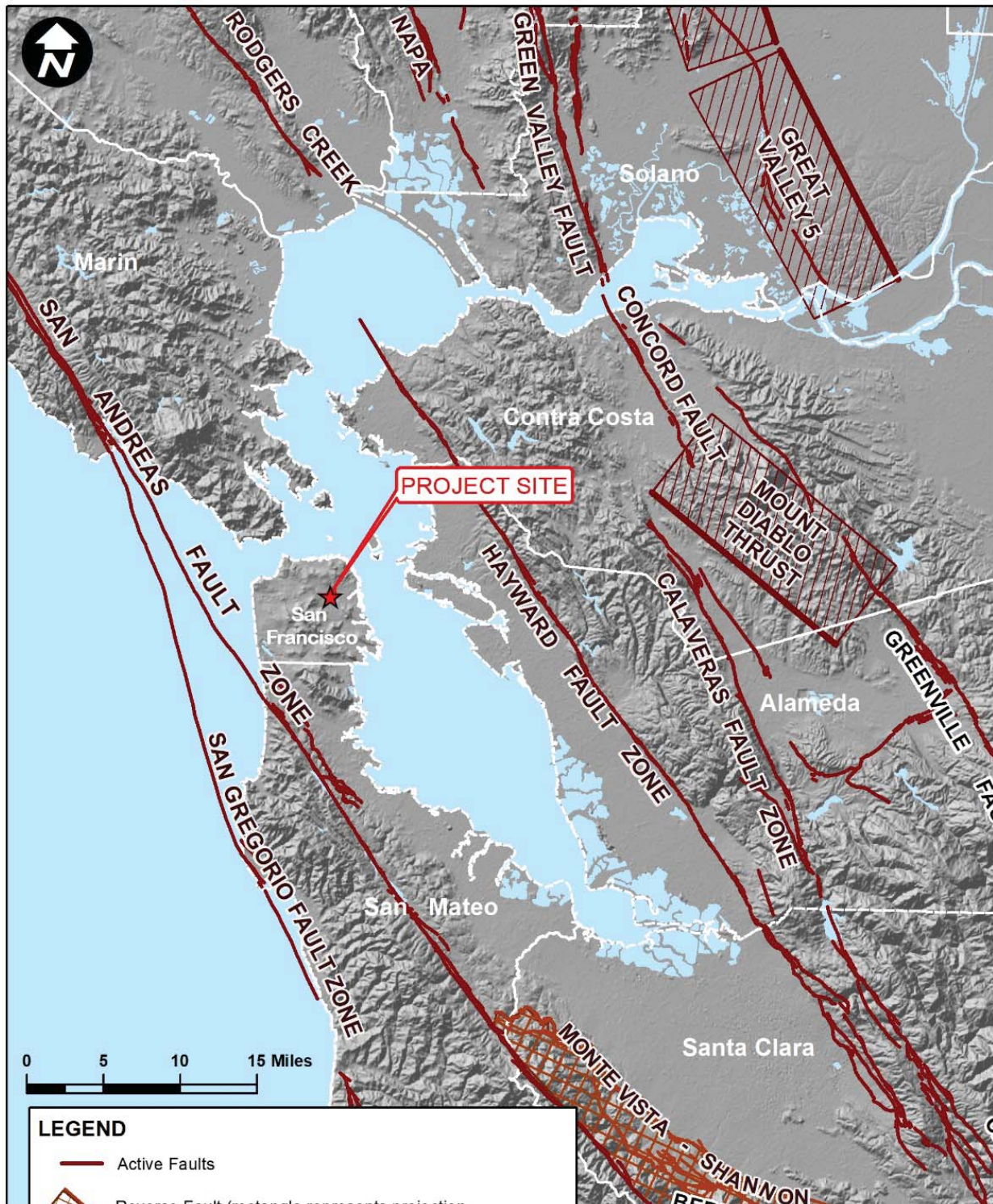
²¹⁰ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²¹¹ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.




²¹² Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation, 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, July 3, 2012, San Francisco, CA.

²¹³ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²¹⁴ *Differential settlement* is unequal settling of soil.



LEGEND

-  Active Faults
-  Reverse Fault (rectangle represents projection of the fault plane to the surface)
-  Blind Thrust Faults (faults do not intersect the surface, mapped trace represents projection of upper edge of the fault to surface; rectangle represents projection of the fault plane to the surface)

Fault Data Sources: U.S.G.S. and C.G.S., 2006, Quaternary fault and fold database for the United States; and Cao, et. al., 2003, The Revised 2002 California Probabilistic Seismic Hazard Maps, Appendix A - 2002 California Fault Parameters (blind thrust fault data).

Source: Geotechnical Consultants, Inc. 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

**Figure E.16-2
 Regional Faults**

ICF Graphics... 0070017 (4-25-2019)

As stated above, dune sand and marsh deposits underlying the Hub Plan area lie at a depth that intersects groundwater, which could make them prone to liquefaction.²¹⁵ Further, portions of the Hub Plan area are identified as being at risk of liquefaction (**Figure E.16-3**).²¹⁶ Up to several inches of liquefaction-induced settlement could occur beneath the Hub Plan area. However, one factor constrains the potential for ground failure: there is no streambank, cliff, or other free face; therefore, the risk of lateral spreading is minimal.²¹⁷

Terrestrial sedimentary deposits underlying the Hub Plan area that are Pleistocene age or older have potential to contain significant paleontological resources. Colma formation in San Francisco is documented as having yielded vertebrate fossils, including species of mammoth and bison (*Mammuthus columbi* and *Bison latifrons*) at the southeast base of Telegraph Hill in San Francisco.²¹⁸

APPROACH TO ANALYSIS

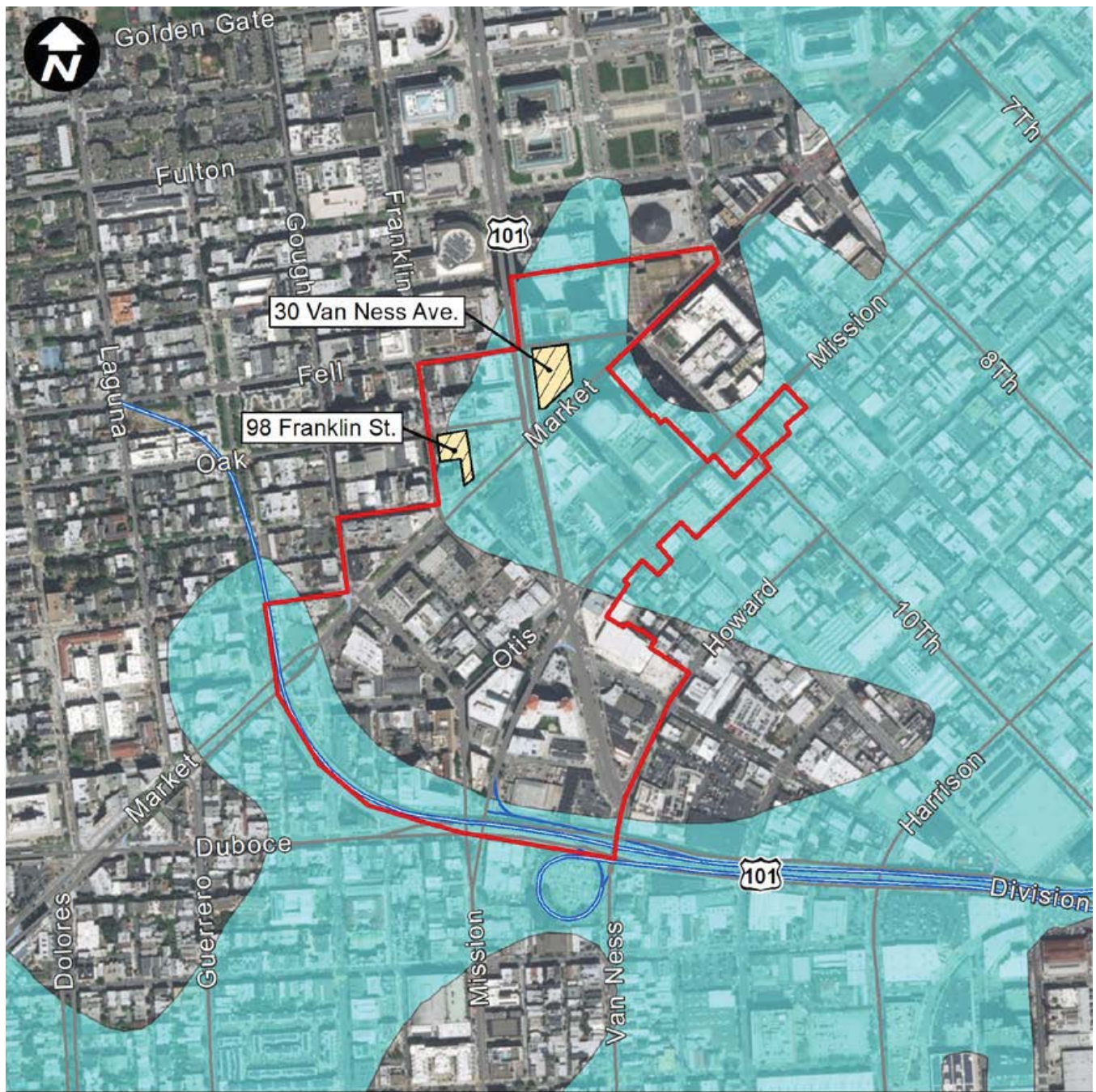
Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on geology, soils, seismicity, and paleontological resources could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new mixed-use housing projects to the area, the development of which could affect geology, soils, seismicity, and paleontological resources; therefore, they are analyzed on a project-specific level.

²¹⁵ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

²¹⁶ California Geological Survey, *Earthquake Zones of Required Investigation: San Francisco North Quadrangle*, 2000, http://gmw.conservaion.ca.gov/SHP/EZRIM/Maps/SAN_FRANCISCO_NORTH_EZRIM.pdf, accessed: February 28, 2018.

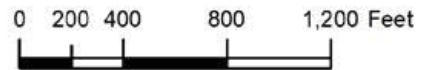
²¹⁷ *Lateral spreading* is a type of landslide that forms on gentle slopes and has rapid liquid-like movement. It is frequently associated with liquefaction and occurs where there is a free, unconstrained face such as a streambank or cliff past which sediments can freely move.

²¹⁸ Rodda, Peter U., and Nina Baghai, Late Pleistocene Vertebrates from Downtown San Francisco, California, *J. Paleont.* 67(g), 1993, pp. 1068–1063.



LEGEND

- The Hub Plan Area
- Individual Development Project Sites
- CGS Seismic Hazard Zones
- Liquefaction Hazard Zone



Source: California Geological Survey, 2000. GIS files of Official Maps of Seismic Hazard Zones, Seismic Hazard Zone Map of the San Francisco North Quadrangle.

Source: Geotechnical Consultants, Inc. 2018.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District (HSD)
Case Nos. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

Figure E.16-3
Liquefaction Hazard

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

Given the City's initial study checklist criteria, the department considers whether a project would be located in an area that is subject to surface fault rupture of a known earthquake fault or strong seismic ground shaking, as mapped by the California Geologic Survey or presented in other substantial evidence. However, in the *California Building Industry Association v. Bay Area Air Quality Management District* case that was decided in 2015, the California Supreme Court held that CEQA does not generally require lead agencies to consider how existing hazards or conditions might affect a project's users or residents, except when the project would exacerbate an existing environmental hazard. Accordingly, hazards resulting from a project that places development in an area subject to surface fault rupture or seismic ground shaking are not considered impacts under CEQA, unless the project would exacerbate a seismic hazard. Although development projects on the scale proposed for the Hub Plan would not exacerbate seismic hazards, the discussion below provides information regarding exposure to increased risks associated with surface fault rupture and strong seismic ground shaking.

Construction-related impacts could include erosion, excavation instability, unbalanced and seismic loading on the adjacent underground transit lines, and destruction of paleontological resources. The primary operations-related impact is settlement from seismic densification, including differential settlement. Evaluation of these impacts was based on published geologic maps and reports and reports prepared for prior or planned projects within the Hub Plan area, as cited in this section.

To identify impacts on paleontological resources, the paleontological sensitivity of geologic units present within the Hub Plan area was identified. Paleontological sensitivity is an indicator of the likelihood of a geologic unit to yield fossils.²¹⁹

²¹⁹ Society of Vertebrate Paleontology, *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, 2010, http://vertpaleo.org/Membership/Member-Ethics/SVP_Impact_Mitigation_Guidelines.aspx, accessed: February 21, 2018.

The fossil-yielding potential of geologic units in a particular area depends on the geologic age and origin of the units, as well as on the processes they have undergone, both geologic and anthropogenic.²²⁰ The methods used to analyze potential impacts on paleontological resources and to develop mitigation for the identified impacts involved the following steps:

- Assess the likelihood of sediments affected by implementing the Hub Plan, the proposed streetscape and street network changes, and project-specific development at 30 Van Ness Avenue and 98 Franklin Street containing scientifically important, nonrenewable paleontological resources that could be directly affected.
- Identify the geologic units in the paleontological study area.
- Evaluate the potential of the identified geologic units to contain significant fossils (their paleontological sensitivity).
- Identify the geologic units that would be affected by implementing the Hub Plan, project-specific development at 30 Van Ness Avenue and 98 Franklin Street, and the proposed streetscape and street network changes, based on depth of excavation.
- Identify and evaluate impacts on paleontologically sensitive geologic units as a result of construction and operations that involve ground disturbance.
- Evaluate impact significance.
- According to the identified degree of sensitivity, if necessary, formulate and implement measures to mitigate potential impacts.

The potential for a project to affect paleontological resources is related to ground disturbance. Ground disturbance caused by a project would take place during construction phases; therefore, this impact analysis addresses construction impacts.

Each geologic unit at the project site was assigned a paleontological potential level, based on the Potential Fossil Yield Classification (PFYC) system for paleontological resources developed by the Bureau of Land Management.²²¹ Under the PFYC system, the classification of geologic units is based on the relative abundance of scientifically significant paleontological resources and their potential to yield paleontological resources. The PFYC system is intended to provide baseline guidance for predicting, assessing, and mitigating impacts on paleontological resources. The PFYC levels of potential (very low, low, moderate, high, very high, and unknown,) are defined as follows:²²²

²²⁰ *Anthropogenic* means caused by human activity.

²²¹ U.S. Department of the Interior, Bureau of Land Management, *Potential Fossil Yield Classification System*, 2016, https://www.blm.gov/sites/blm.gov/files/uploads/IM2016-124_att1.pdf, accessed July 11, 2019.

²²² *Ibid.*

- **Very Low Potential:** Assigned to geologic units that are “igneous or metamorphic, excluding air-fall and reworked volcanic ash units [and units that] are Precambrian in age.” These geologic units are unlikely to “contain recognizable paleontological resources.” Mitigation is not required.
- **Low Potential:** Assigned to geologic units that are “generally younger than 10,000 years before present, recent aeolian deposits, [or] sediments that exhibit significant physical and chemical changes that make fossil preservation unlikely.” These geologic units are unlikely to contain paleontological resources. Mitigation is generally not required to protect fossils.
- **Moderate Potential:** Assigned to “sedimentary geologic units where fossil content varies in significance, abundance, and predictable occurrence and units that are marine in origin with sporadic known occurrences of paleontological resources.” These geologic units may intermittently contain paleontological resources, but the occurrence of paleontological resources is “widely scattered.” Mitigation may be required to protect fossils.
- **High Potential:** Assigned to geologic units known to contain a high occurrence of paleontological resources. Significant paleontological resources have been documented but may vary in occurrence and predictability. Mitigation is required to protect fossils.
- **Very High Potential:** Assigned to “highly fossiliferous geologic units that consistently and predictably produce significant paleontological resources. Significant paleontological resources have been documented and occur consistently” in these geologic units. Mitigation is required to protect fossils.
- **Unknown Potential:** Geologic units in this category “may exhibit features or preservational conditions that suggest significant paleontological resources could be present but little information about the actual paleontological resources of the unit or area is unknown.” In cases where no subsurface data already exist, paleontological potential can sometimes be assessed by subsurface site investigations.

Measures for adequate protection or salvage of significant paleontological resources are applied to areas determined to contain geologic units with high or undetermined potential to contain significant paleontological resources. In areas determined to have high or undetermined potential for significant paleontological resources, an adequate program for reducing the impact of development must include specific conditions, such as surveying; monitoring by a qualified paleontological resource monitor; salvaging, identifying, cataloging, curating, and providing repository storage; and reporting.

IMPACTS AND MITIGATION MEASURES

Impact GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be subject to the effects of surface fault rupture. (No Impact)

The Hub Plan area is not located within an Alquist-Priolo Earthquake Fault Zone, and no active or potentially active faults exist in the area or in the immediate vicinity.²²³ The Hub Plan area, including the streetscape and street network changes, and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, is unlikely to experience surface fault rupture. Furthermore, project components would not exacerbate existing conditions that would increase the likelihood of surface fault rupture. There would be *no impact*.

Impact GE-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death, involving strong seismic ground shaking. (Less than Significant)

The intensity of the seismic shaking, or strong ground motion, in the Hub Plan area during an earthquake is dependent on the distance between the Hub Plan area and the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions underlying and surrounding the Hub Plan area. Earthquakes occurring on the faults closest to the Hub Plan area would most likely generate large ground motions. The intensity of earthquake-induced ground motions can be described in terms of “peak ground acceleration,” which is represented as a fraction of the acceleration of gravity (g).²²⁴ The California Geological Survey estimates that peak ground accelerations within the Hub Plan area would be approximately 0.8g for a 2 percent probability of exceedance in 50 years and 0.5g for a 10 percent probability of exceedance in 50 years.²²⁵ This corresponds to strong ground shaking.

²²³ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²²⁴ Acceleration of gravity (g) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a vehicle traveling 328 feet from rest in 4.5 seconds.

²²⁵ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

As stated above, the U.S. Geological Survey concluded that, overall, there is a 72 percent likelihood of an earthquake of magnitude 6.7 or greater occurring in the San Francisco Bay Area in the 30-year period between 2014 and 2043.²²⁶ The faults nearest the Hub Plan area capable of causing strong ground shaking in the Hub Plan area are the North San Andreas, San Gregorio, Hayward, and Calaveras faults.

Although the Hub Plan area could be subject to very strong ground shaking in the event of a major earthquake, individual development projects, including those at 30 Van Ness Avenue and 98 Franklin Street, would not expose people or structures to substantial adverse effects related to ground shaking because they would be designed and constructed in accordance with the most current building code, which incorporates California Building Code requirements. The building code specifies definitions of seismic sources and the procedure used to calculate seismic forces on structures during ground shaking. In addition, the building code specifies that soils that are potentially subject to seismically induced liquefaction must be addressed during construction with appropriate mitigation measures. These can include selection of appropriate foundation type and depth, selection of appropriate structural systems to accommodate anticipated displacements and forces, and ground stabilization. For ground stabilization mitigation, potentially liquefiable sand may, for example, be removed in conjunction with excavation for the basement levels, and ground improvements may be made on soils that remain. Individual development projects would be required to comply with the building code for structural design and submit geotechnical investigations that address seismic hazards and recommend an appropriate foundation to support the proposed structure(s). During its review, the building department, in consultation with the engineer or record for each individual development project, would determine necessary engineering and design features for a structure to reduce potential damage to structures from ground shaking and to ensure compliance with all building code provisions regarding structural safety. Project construction documents would be reviewed by the building department for conformance with recommendations in the project-specific geotechnical report as well as compliance with the building code and the building department's implementing procedures.

On December 27, 2017, the building department issued information sheet S-18, Interim Guidelines and Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review for New Tall Buildings (interim guidelines).²²⁷ The interim guidelines supplement and clarify the information in administrative bulletins AB-082 (Guidelines and

²²⁶ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²²⁷ San Francisco Department of Building Inspection, *Information Sheet No. S-18, Interim Guidelines and Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review for New Tall Buildings*, published December 27, 2017, <http://sfdbi.org/sites/default/files/IS%20S-18.pdf>, accessed: July 11, 2019.

Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review)²²⁸ and AB-083 (Requirements and Guidelines for the Seismic Design of New Tall Buildings using Non-Prescriptive Seismic-Design Procedures).^{229,230} Tall buildings are defined as those 240 feet or taller in the interim guidelines and in AB-082. However, AB-083 specifies the requirements and guidelines for the non-prescriptive design of new tall buildings that are more than 160 feet high to ensure that the design meets the standards of the building code. In the event of an earthquake, buildings designed to the requirements and guidelines of AB-083 would demonstrate a seismic performance at least equivalent to that of a building designed according to the code-prescriptive seismic standards of the building code. **Table E.16-1** shows the locations of proposed tall buildings, current building height limitations in feet, and proposed building height limitations under the Hub Plan.

TABLE E.16-1. PROPOSED TALL BUILDING LIMITS IN THE HUB PLAN AREA (240 FEET OR TALLER)

Address	Current Building Height Limit (feet)	Proposed Building Height Limit (feet)
30 Van Ness Avenue	400	520
1500–1540 Market Street	400	450
98 Franklin Street	85	365
1 South Van Ness Avenue	400	650
10 South Van Ness Avenue	400	590
30 Otis Street	250	320
99 South Van Ness Avenue	120	250
33 Gough Street	85	250

²²⁸ San Francisco Department of Building Inspection, *Guidelines and Procedures for Structural, Geotechnical, and Seismic Hazard Engineering Design Review, Administrative Bulletin 082*, November 21, 2018, <http://sfdbi.org/sites/default/files/AB-082.pdf>, accessed: July 11, 2019.

²²⁹ San Francisco Department of Building Inspection, *Requirements and Guidelines for the Seismic Design of New Tall Buildings using Non-Prescriptive Seismic-Design Procedures*, March 25, 2008 (updated January 1, 2014, for code references), Administrative Bulletin 083, http://docs.ppsmixeduse.com/ppp/DEIR_References/2014_0101_sfdbi_ab_083.pdf, accessed: July 11, 2019.

²³⁰ As stated in IS-18, SEAONC experts are reviewing the information and procedures in Administrative Bulletin 082 and Administrative Bulletin 083 and may recommend to the director of the building department and the building inspection commission the adoption of modified guidelines for future tall building safety in San Francisco.

The interim guidelines specify requirements for the scope of geotechnical and structural review conducted by qualified geotechnical reviewers as part of a Geotechnical Engineering Design Review Team (review team).²³¹

A project sponsor's engineer of record for a project would work with the two-member geotechnical review team to resolve all comments related to the foundation design in order to achieve consensus on the adequacy of the building's foundation and structural design. A report of the findings from the geotechnical review team shall be provided to the building department director. The report would provide findings and address the following issues: the foundation type (shallow or deep), foundation design, interpretation of geotechnical and geological investigations, soil-foundation-structure interaction under static and seismic loading conditions, effects of dewatering and construction-related activities on the site and in the vicinity, and foundation or building settlement. The interim guidance also requires, prior to completion of a proposed project, the project sponsor to contract qualified monitoring surveyors and instrumentation engineers to monitor the effects of settlement on the building and foundations of the project for a period of 10 years after the issuance of the certificate of final completion and occupancy. The findings from the post-occupancy surveys shall be provided to the building department annually within this 10-year period.

Incorporation of appropriate engineering and design features into individual development projects, in accordance with the building code, and recommendations identified through the review processes specified by AB-082 and AB-083, as supplemented and clarified in S-18, would ensure that minimum life safety standards are met. New structures incentivized by the Hub Plan in the Hub Plan area, including the two individual development projects, would be required to meet standards set by the building code or provided in recommendations made through structural, geotechnical, or seismic hazard engineering design review pursuant to procedures in AB-082 or AB-083.

The proposed streetscape and street network changes would include construction of sidewalk improvements and other at-grade improvements as well as signalized mid-block crosswalks with new vehicular traffic signals. Although the at-grade improvements, such as sidewalks and plazas, could be damaged in the event of strong ground shaking, such damage would not result in a hazard to life or health and would not be likely to cause damage at adjacent properties. Above-ground improvements, such as streetlights, could be damaged, and such failure could affect human health and safety or damage property. However, development within the City right-of-way would be subject to public works permitting requirements, including applicable health and safety requirements of article 2.4 of the San Francisco Public Works Code,

²³¹ A qualified geotechnical reviewer for engineering design review teams shall be a geotechnical engineer (G.E.) registered in California or a civil engineer (C.E.) registered in California with substantially demonstrated geotechnical experience.

Excavation in the Public Right-of-Way. As with the development of new buildings, these improvements would be designed to resist seismic and geologic hazards, in compliance with applicable codes and design standards, which take into account the expected seismic conditions in the project vicinity. In addition, the design would be subject to review by public works as part of the permitting process. Furthermore, the subsequent development projects incentivized by Hub Plan, the proposed streetscape and street network improvements, and project-specific development at 30 Van Ness Avenue and 98 Franklin Street, would not exacerbate any condition that would increase the intensity of ground shaking. The impact would be *less than significant*.

Impact GE-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly cause seismically induced ground failure, including liquefaction, earthquake-induced settlement, or landslides. (Less than Significant)

LIQUEFACTION, LATERAL SPREADING, AND EARTHQUAKE-INDUCED SETTLEMENT

Liquefaction is a phenomenon in which saturated granular sediments such as sand and silt temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. The susceptibility of a site to liquefaction is a function of the depth, density, and water content of the granular sediments and the magnitude of earthquakes likely to affect the site. Saturated, unconsolidated silts, sands, silty sands, and gravels within 50 feet of the ground surface are most susceptible to liquefaction. The primary liquefaction-related phenomena are lateral spreading and soil settlement, including differential settlement. In addition, differential settlement can result from seismic densification, as discussed in the Setting section, above. Because there is no free face within the Hub Plan area, the risk of lateral spreading is low and is not discussed further. Soil settlement can damage foundations, particularly under differential settlement.

As shown in **Figure E.16-3**, p. E.16-7, large portions of the Hub Plan area are within a liquefaction hazard zone.²³² In addition, dune sands underlying the area could be subject to seismic densification.²³³ Therefore, individual development projects implemented pursuant to the Hub Plan could be subject to both liquefaction and earthquake-induced settlement. However, buildings constructed pursuant to the Hub Plan would be supported on foundations determined appropriate by site-specific geotechnical investigations and designed in accordance

²³² California Geological Survey. 2000. *Earthquake Zones of Required Investigation: San Francisco North Quadrangle*. Available: http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/SAN_FRANCISCO_NORTH_EZRIM.pdf. Accessed: February 28, 2018.

²³³ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

with the building code. Individual development sites may require soil improvement, based on site conditions. Construction documents specifying the structural design, including the type of foundation, would be reviewed by the building department during review of the building permits. Soils that could liquefy or experience earthquake-induced settlement would be removed during construction and/or soil improvement techniques would be implemented in conjunction with development of the structural foundation design. Removal of potentially liquefiable materials and/or implementation of soil improvement techniques, along with appropriate foundation designs, would reduce the potential for settlement within building footprints. However, adjacent streets and unimproved properties may experience settlement, which could affect utilities and surface improvements such as sidewalks.

Both of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would be located on soils that have been identified as subject to liquefaction hazards and soil settlement as a result of seismic densification, as described in the *Setting* section, above. The individual development projects at 30 Van Ness Avenue²³⁴ and 98 Franklin Street²³⁵ have been designed in accordance with existing preliminary geotechnical studies. The 30 Van Ness Avenue Project proposes a concrete mat foundation supported by deep auger cast piles. There is potential for several inches of settlement as a result of seismic densification,²³⁶ most likely resulting in differential settlement.²³⁷ The 98 Franklin Street Project proposes a mat slab foundation. There is potential for 1 to 2 inches of settlement as a result of seismic densification, possibly resulting in differential settlement, which could affect utilities and surface improvements.²³⁸ Potentially liquefiable sand may be removed in conjunction with excavation for the basement levels, and ground improvements may be made on soils that remain.

To address the potential for liquefaction and earthquake-induced settlement throughout the Hub Plan area, including the sites for the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, the building department would, in its review of building permit applications, refer to sources such as maps of special geologic study areas and known liquefaction areas in San Francisco. If a subsequently proposed development project is located

²³⁴ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

²³⁵ Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation, 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, July 3, 2012, San Francisco, CA.

²³⁶ *Seismic densification* is the process of rearranging soil particles into a tighter configuration as a result of seismic ground shaking. The result of seismic densification is vertical settlement. Because soils are not uniformly dense, seismic densification often results in differential settlement.

²³⁷ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

²³⁸ Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation, 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, July 3, 2012, San Francisco, CA.

in an area of potential liquefaction, the building department would require the project sponsor to prepare a geotechnical report pursuant to the State Seismic Hazards Mapping Act. The report would assess the nature and severity of the hazard on the site and recommend project design and construction features that would reduce the hazards. The building department would review the building plans and geotechnical report to ensure that the recommended engineering and design features are included in the project. The design of any proposed buildings more than 160 feet tall, such as the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could also be subject to compliance with AB-083 for non-prescriptive design and peer review. In addition, local building code requirements, including AB-082 and the interim guidelines specified in information sheet S-18 regarding structural design review for tall buildings, would require peer review of the project's site conditions and design by a two-member engineering design review team, along with monitoring for settlement during the 10-year period after the certificate of completion and occupancy is issued. Therefore, impacts of subsequent development projects in the Hub Plan area, including the two individual development projects, related to exacerbation of liquefaction and earthquake-induced settlement would be *less than significant*.

The proposed streetscape and street network changes would include street widening and reconfiguration, reconfiguration of vehicular parking, the addition of improvements for people walking and bicycling, construction of sidewalk improvements and other at-grade improvements, construction and realignment of medians, and landscaping. As with development of new buildings, these improvements would be designed to resist seismic and geologic hazards, in compliance with applicable codes and design standards that take into account the expected seismic conditions. In addition, the design would be subject to review by public works as part of the permitting process. Furthermore, these structures are unlikely to exacerbate liquefaction or settlement. Therefore, impacts related to liquefaction, earthquake-induced settlement, and lateral spreading are considered *less than significant* for the proposed streetscape and street network changes.

EARTHQUAKE-INDUCED LANDSLIDES

The Hub Plan area is relatively flat and does not include any areas of mapped earthquake-induced landslide susceptibility.²³⁹ Therefore, impacts related to exacerbation of earthquake-induced landslides on subsequent development projects approved pursuant to the Hub Plan, the proposed streetscape and street network improvements, and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would be *less than significant*.

²³⁹ California Geological Survey, *Earthquake Zones of Required Investigation: San Francisco North Quadrangle*, 2000, http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/SAN_FRANCISCO_NORTH_EZRIM.pdf, accessed: February 28, 2018.

Mitigation: None required.

Impact GE-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in substantial erosion or loss of topsoil. (Less than Significant)

The Hub Plan area is primarily built out and covered with impervious surfaces, including buildings, streets, and sidewalks; previous construction would have removed topsoil (i.e., a fertile soil horizon that typically contains a seed base). Therefore, there would be no impact related to loss of topsoil.

Soil movement for foundation excavation could create the potential for wind- and water-borne soil erosion. However, the Hub Plan area is relatively flat; therefore, substantial erosion and loss of soil would not be expected to occur during site preparation and construction of subsequent development projects approved pursuant to the Hub Plan, and project-specific development at 30 Van Ness Avenue and 98 Franklin Street. Furthermore, all construction sites in San Francisco must implement best management practices for sediment and erosion control. In addition, sponsors of subsequent development projects approved pursuant to the Hub Plan that disturb between 5,000 square feet and 1 acre of ground surface, as well as project-specific development at 30 Van Ness Avenue and 98 Franklin Street, would be required, at a minimum, to implement an erosion and sediment control plan for construction activities, in accordance with article 4.1 of the San Francisco Public Works Code, and, depending on the site size, a SWPPP (discussed in E.15, Hydrology and Water Quality) to reduce the impact of runoff from each construction site. The San Francisco Public Utilities Commission must review and approve erosion and sediment control plans prior to implementation and would conduct periodic inspections to ensure compliance with each plan.²⁴⁰

The proposed streetscape and street network changes would occur within the public right-of-way and involve only minimal ground disturbance in a previously developed area with no existing topsoil horizon. Where the proposed streetscape and street network changes would require soil excavation, they would also be subject to the erosion control measures of article 4.1 of the San Francisco Public Works Code. Therefore, impacts related to soil erosion and the loss of topsoil would be *less than significant*.

Mitigation: None required.

²⁴⁰ San Francisco Public Utilities Commission, *Construction Site Runoff Control Program*, <https://sfwater.org/index.aspx?page=235>, accessed July 11, 2019.

Impact GE-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not be located on a geologic unit or soil that is unstable or that could become unstable as a result of the project. (Less than Significant)

Construction of subsequent development projects approved pursuant to the Hub Plan and project-specific development at 30 Van Ness Avenue and 98 Franklin Street could induce ground settlement as a result of excavation for construction of subsurface vehicular parking or basement levels, construction dewatering, heave during installation of piles, and long-term dewatering.

The building department would require a site-specific geotechnical report for each subsequent development project approved pursuant to the Hub Plan. The geotechnical report would be reviewed by the building department to ensure that it contains the required information specified in building code section 1803.6. These requirements include a record of the soil profile; the elevation of the water table, if encountered during the investigation; recommendations for the foundation type as well as the design criteria for the proposal, including, but not limited to, the bearing capacity of natural or compacted soil; provisions for mitigating the effects of expansive soils; mitigation for the effects of liquefaction, differential settlement, and varying degrees of soil strength; and a determination of the effects of adjacent loads. In addition, the geotechnical report would specify expected total and differential settlement. (The required site-specific geotechnical reports have been prepared for the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street.) If a monitoring survey is recommended, the building department would require the project sponsor to retain a special inspector to perform the monitoring. If appropriate and recommended, the building department may require that the geotechnical report include a dewatering plan.

These potential effects are described below.

EXCAVATION

Subsequent development projects approved pursuant to the Hub Plan could require excavation to currently unknown depths for construction of basement levels and potential below-ground vehicular parking. Project-specific development would require excavation up to 48 feet for 30 Van Ness Avenue and 39 feet for 98 Franklin Street. During excavation, the artificial fill, dune sand, marsh deposit, and Colma formation (described above), could become unstable, potentially causing settlement of adjacent structures, including buildings, sidewalks, streets, and utilities. In accordance with the California Building Code and the local building code, shoring would be required to prevent this soil from becoming unstable. The engineer of record would be responsible for monitoring during excavation. The final building plans would be reviewed by the building department for conformance with recommendations in the site-specific geotechnical report.

The proposed streetscape and street network changes would occur within the public right-of-way and involve only minimal ground disturbance. No deep excavation or pile driving that could induce settlement would be conducted during construction of the streetscape and street network changes.

With implementation of the recommendations in the project-specific detailed geotechnical studies for individual development projects approved under the Hub Plan, as well as the two individual development projects, subject to review and approval by the building department, impacts related to the potential for settlement and subsidence due to excavation in soil that is unstable, or could become unstable as a result of such construction, would be *less than significant*.

DEWATERING

As stated above, groundwater in most of the Hub Plan area is relatively shallow (encountered at a depth of 10 to 23 feet bgs). Therefore, it is expected that most development-related excavation under the Hub Plan deeper than 10 feet below the ground surface,²⁴¹ including the two individual development projects at 30 Van Ness Avenue²⁴² and 98 Franklin Street,²⁴³ would encounter groundwater. Dewatering would most likely be implemented to avoid substantial water inflow to the excavation during construction. In addition, during project operation, groundwater could exert hydrostatic pressure on subsurface vehicular parking or basement levels constructed as part of subsequent development projects under the Hub Plan and the two individual development projects. Permanent dewatering could be required to relieve this pressure.

It is expected that most excavations deeper than 10 feet would encounter groundwater and would require dewatering to maintain a dry work environment and a firm subgrade for preparation of foundation construction.²⁴⁴ A water-tight shoring system could be used during excavation for structures, and dewatering excavation for the installation of utilities or the compaction of soil is expected to be required. For each subsequent development project in the Hub Plan area as well as the two individual development projects, the building department may specify that the geotechnical report include a dewatering plan during its review of the building plans.

²⁴¹ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018. (Project No. SF18002.) San Francisco, CA.

²⁴² Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

²⁴³ Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation, 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, July 3, 2012, San Francisco, CA.

²⁴⁴ Geotechnical Consultants, Inc., *Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, 2018, Project No. SF18002, San Francisco, CA.

Any groundwater encountered during construction of subsequent development projects under the Hub Plan, as well as the two individual development projects, would be subject to requirements of the City's Sewer Use Ordinance (article 4.1 of San Francisco Public Works Code; added by ordinance No. 19-92, amended by ordinance No. 116-97), as supplemented by San Francisco Public Works Order No. 158170, requiring a permit from the Wastewater Enterprise Collection System Division of the San Francisco Public Utilities Commission. A permit may be issued only if an effective pretreatment system is maintained and operated. Each permit for such discharge would contain specified water quality standards and may require the project sponsor to install and maintain meters to measure the volume of the discharge to the combined sewer system. In addition, if a subsequent project-specific geotechnical investigation determines that dewatering wells would be needed to draw the groundwater down below the planned depths of excavation, those dewatering wells would be subject to the requirements of the City's Soil Boring and Well Regulation Ordinance (Health Code article 12B, added by ordinance No. 113-05), requiring a project sponsor to obtain a permit from the San Francisco Department of Public Health (public health department) prior to constructing a dewatering well. A permit may be issued only if the project sponsors use construction practices that would prevent the contamination or pollution of groundwater during the construction or modification of the well or soil boring.

The proposed streetscape and street network changes would occur within the public right-of-way and involve only minimal ground disturbance. No deep dewatering that could induce settlement would be conducted for construction of these changes.

With implementation of the recommendations provided in the project-specific detailed geotechnical studies for the individual development projects approved under the Hub Plan, as well as the two individual development projects, subject to review and approval by the building department, and compliance with the City's Sewer Use Ordinance and the requirements of the City's Soil Boring and Well Regulation Ordinance, impacts related to potential settlement and subsidence due to dewatering in soil that is unstable, or could become unstable as a result of such construction, would be *less than significant*.

SPECIAL CONSIDERATIONS FOR CONSTRUCTION IN OR NEAR THE BART ZONE OF INFLUENCE

Subway transit facilities for BART and Muni operate below Market Street and along an alignment that turns toward Mission Street after Civic Center Station. Both facilities are owned by BART. Proposed structures constructed within the zone of influence (ZOI) must take into account special considerations in order to avoid destabilizing nearby transit structures. BART's Real Estate and Property Development Department coordinates permits and plan review for any construction on, or adjacent to, the BART right-of-way. If it is determined that inspection or

monitoring will be needed for a project, then a construction permit from BART is required.²⁴⁵ Regardless, the general guidelines for design and construction over or adjacent to BART's subway structures would need to be adhered to.²⁴⁶ The building department will not issue a building permit for proposals over or adjacent to these facilities without receiving confirmation from BART that the sponsor has complied with the guidelines. For example, construction of piles must be isolated from the tunnel ZOI using a double-casing scheme to avoid destabilization of the tunnel facilities, as discussed below.

Subsequent development projects that abut Market Street above the BART ZOI, including the 98 Franklin Street Project and the 30 Van Ness Avenue Project, as well as projects above the BART facility, which is used for San Francisco Muni service from South Van Ness Avenue, across 12th Street, to Brady Street,²⁴⁷ need to demonstrate that the new construction would not adversely affect BART structures under temporary or permanent conditions. This would require geotechnical as well as structural analysis. BART would most likely require structural drawings and calculations, shoring plans, and calculations, along with geotechnical plan review letters, for its review.²⁴⁸

With implementation of the recommendations provided in project-specific detailed geotechnical studies for individual development projects approved under the Hub Plan, as well as the two individual development projects, subject to review and approval by the building department as well as review and approval by BART for the project-specific structural design and calculations regarding conformance with BART construction guidelines, if applicable, based on the site location, impacts related to the potential for soil settlement or subsidence would be *less than significant*.

Mitigation: None required.

Impact GE-6: The Hub Plan, as well as or individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create substantial risks to life or property as a result of location on expansive soils. (Less than Significant)

As discussed under *Setting*, the artificial fill and dune sand beneath the Hub Plan area are sandy and not expansive. The marsh deposits beneath the Hub Plan area have potentially expansive

²⁴⁵ Bay Area Rapid Transit, *Construction Permits, 2019*, <https://www.bart.gov/about/business/permits/repermits>, accessed July 11, 2019.

²⁴⁶ Bay Area Rapid Transit, *General Guidelines for Design and Construction Over or Adjacent to BART's Subway Structures*, July 23, 2003, https://www.bart.gov/sites/default/files/docs/Gen_Guide_Subway_062012.pdf, accessed July 11, 2019.

²⁴⁷ Bay Area Rapid Transit. 1977. Record Maps of Right of Way, Bay Area Rapid Transit District, City & County of San Francisco. January 31, 1977.

²⁴⁸ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

properties. However, these sediments are generally below the groundwater table and thus are permanently saturated. Therefore, none of the soils in the Hub Plan area are expected to exert expansive forces on building foundations or proposed streetscape and street network improvements. Therefore, impacts related to expansive soils would be *less than significant* for subsequent development projects approved pursuant to the Hub Plan, the proposed streetscape and street network changes, and project-specific development at 30 Van Ness Avenue and 98 Franklin Street.

Mitigation: None required.

Impact GE-7: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, could directly or indirectly destroy a unique paleontological resource or site or geological feature. (Less than Significant with Mitigation)

A unique geologic or physical feature embodies distinctive characteristics of regional or local geologic principles, provides a key piece of information important to geologic history, contains minerals not known to occur elsewhere in the county, and/or is used as a teaching tool. No unique geologic features exist at the project site; therefore, no impacts on unique geological features would occur. Although portions of the Hub Plan area would be excavated and terraced, the general topography of the area would remain the same. With respect to unique geologic features and topography, there would be no impact; no mitigation measures are necessary. This topic is not discussed further.

As stated under Approach to Analysis, terrestrial sedimentary deposits of middle Holocene age or older have the potential to contain significant fossils. Within the Hub Plan area, marsh deposits and Colma formation meet this criterion. Within the Hub Plan area, marsh deposits are found between approximately 6.5 and 35 feet bgs, and the Colma formation is found at approximately 12 to 27 feet bgs, extending to 200 feet bgs. Marsh deposits and the Colma formation are found at typical depths at 30 Van Ness Avenue and 98 Franklin Street. Of these, marsh deposits are not known to contain fossils and therefore fall under the PFYC category for unknown potential with respect to containing significant paleontological resources. However, the Colma formation has yielded vertebrate fossils²⁴⁹ and is considered to have moderate potential with respect to containing significant fossils. Subsequent development projects under the Hub Plan and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would have the potential to disturb significant paleontological resources because excavations would extend as deep as the Colma formation, which can be found at 12 to

²⁴⁹ Rodda, Peter U., and Nina Baghai, Late Pleistocene Vertebrates from Downtown San Francisco, California, *J. Paleont.* 67(g), 1993, pp. 1068–1063.

27 bgs.²⁵⁰ Excavation for the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would most likely reach the Colma formation (up to 48 feet deep for 30 Van Ness Avenue and 39 feet deep for 98 Franklin Street).

The proposed streetscape and street network changes would disturb surficial deposits, consisting of artificial fill to a depth of 5 to 20 feet near U.S. 101 and dune sand throughout the remainder of the area (**Figure E.16-1**, p. E.16-3), reaching to depths of 15 to 30 feet. Artificial fill falls under the PFYC category for low potential to yield significant fossils. Even if fossils occasionally occur in artificial fill, they have been removed from their place of origin, and thus their scientific value has been lost.

Dune sand has unknown potential. Although it is a terrestrial sedimentary formation in origin and Holocene to Pleistocene in age, there are no records of this unit yielding significant fossils. It is considered to have low potential with respect to containing fossils. Therefore, excavation in areas with dune sand has low potential with respect to disturbing significant paleontological resources.

Because subsequent development projects under the Hub Plan and the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street could extend into the Colma formation, impacts on significant fossils would be significant. Implementation of Mitigation Measure M-GE-1, which would require that the project applicant(s) educate construction workers, monitor for discovery of paleontological resources, evaluate found resources, and prepare and follow a recovery plan for found resources, would reduce the likelihood that significant, or unique, paleontological resources would be destroyed or lost. With implementation of this mitigation measure, the impact would be *less than significant*.

MITIGATION MEASURES

Mitigation Measure M-GE-1 applies to any of the project's components, including subsequent development projects under the Hub Plan and Hub HSD, the streetscape and street network improvements, and the two individual development projects, where the potential exists for excavation to encounter the Colma formation. Streetscape and street network improvements constructed on artificial fill or dune sand with excavation depths of less than 15 feet would not require this mitigation measure.

M-GE-1: *Inadvertent Discovery of Paleontological Resources.* Before the start of any excavation activities, the project applicant(s) shall retain a qualified paleontologist, as defined by the Society of Vertebrate Paleontology, who is experienced in teaching non-specialists. The qualified paleontologist shall train

²⁵⁰ Langan, *Preliminary Geotechnical Study 30 Van Ness Avenue San Francisco, California*, July 7, 2017. (Langan Project No.: 731667902.) San Francisco, CA.

all construction personnel who are involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils that are likely to be seen during construction, the proper notification procedures should fossils be encountered, and the laws and regulations protecting paleontological resources. The qualified paleontologist shall also make periodic visits during earthmoving at high sensitivity sites to verify that workers are following the established procedures. If potential vertebrate fossils are discovered by construction crews, all earthwork or other types of ground disturbance within 25 feet of the find shall stop immediately, and the monitor shall notify the project sponsor, the qualified paleontologist, and the Environmental Review Officer.

The fossil shall be protected by an “exclusion zone” (an area approximately 5 feet around the discovery that is marked with caution tape to prevent damage to the fossil). Work in the affected area shall not resume until a qualified professional paleontologist can assess the nature and importance of the find. Based on the scientific value or uniqueness of the find, the qualified paleontologist may record the find and allow work to continue or recommend salvage and recovery of the fossil. The qualified paleontologist may also propose modifications to the stop-work radius, based on the nature of the find, site geology, and the activities occurring on the site. If treatment and salvage is required, recommendations shall be consistent with Society of Vertebrate Paleontology’s 2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources, as well as currently accepted scientific practice, and subject to review and approval by the Environmental Review Officer. If required, treatment for fossil remains may include preparation and recovery so they can be housed in an appropriate museum or university collection (e.g., the University of California Museum of Paleontology). This may also include preparation of a report for publication describing the finds. The department shall ensure that information on the nature, location, and depth of all finds is readily available to the scientific community through university curation or other appropriate means. The project sponsor shall be responsible for ensuring that the paleontologist’s recommendations regarding treatment and reporting are implemented, including the costs necessary to prepare and identify collected fossils and any curation fees charged for university or museum storage.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

The implementation of Mitigation Measure M-GE-1 would require that the project applicant(s) monitor for discovery of paleontological resources, evaluate found resources, and prepare and follow a recovery plan for found resources, would reduce the likelihood that significant

paleontological resources would be destroyed or lost. With implementation of this mitigation measure, the impact would be *less than significant*.

Impact C-GE-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future projects, would not result in a considerable contribution to cumulative impacts related to geology, soils, seismicity, and paleontological resources. (Less than Significant)

Geologic, soil, seismicity, and paleontological impacts are generally site specific and highly localized. Therefore, the potential for subsequent development projects under The Hub Plan, including the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, to combine with reasonably foreseeable future projects to create a cumulative impact related to geology, soils, seismicity, and paleontological resources would be low. Furthermore, with respect to geology, soils, and seismicity, all projects in the vicinity, as well as subsequent development projects under the Hub Plan, would also be subject to building department requirements for geotechnical review and required to comply with the state and local building codes. Impacts related to paleontological resources would be fully addressed by project mitigation.

The proposed streetscape and street network changes would not result in significant impacts related to seismicity or ground settlement and would not contribute to cumulative impacts related to these effects. All of the proposed streetscape and street network changes would occur within the public right-of-way and would be subject to public works permitting requirements. Therefore, these improvements would be designed to resist seismic and geologic hazards in compliance with applicable codes and design standards that take into account the expected seismic conditions. Further, the design would be subject to review by public works as part of the permitting process.

Therefore, subsequent development projects under the Hub Plan, the proposed streetscape and street network changes, and the two individual development projects would not result in a cumulatively considerable contribution to cumulative impacts related to geology, soils, seismicity, and paleontological resources, and the impact would be *less than significant*.

Mitigation: None required.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
17. HYDROLOGY AND WATER QUALITY. Would the project:					
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? there would be a net deficit in aquifer volume or a	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would:					
i) Result in substantial erosion or siltation on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due a project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The Hub Plan area is not subject to flooding from flood hazard, tsunami, or seiche zones. Therefore, release of pollutants from project inundation in flood hazard, tsunami, or seiche zones would not occur; topic 17(d) is not applicable to any of the project’s components, including the Hub Plan, the proposed streetscape and street network changes, the two individual development projects, or the Hub HSD.

SETTING

SURFACE WATER HYDROLOGY

The Hub Plan area, the two individual development projects, and Hub HSD are within the Visitacion Valley-Frontal San Francisco Bay Estuaries subwatershed of the larger San Francisco Bay watershed. The Hub Plan area is approximately 2 miles southwest of San Francisco Bay. No

natural surface waters go through the area. Historically, Hayes Creek flowed north of the Hub Plan area,²⁵¹ but the area has been filled and the creek has largely been culverted beneath urban development; it ultimately drains to San Francisco Bay.

Stormwater within the Hub Plan area is collected in the City's combined sanitary sewer and stormwater sewer system. The Hub Plan area (which includes the Hub HSD), including the project sites for each of the two individual projects, is paved and generally flat or gently sloping.

GROUNDWATER HYDROLOGY

The Hub Plan area, including the two individual development projects and Hub HSD, are within the Downtown San Francisco Groundwater Basin (Downtown Basin) (ID 2-40).²⁵² Groundwater recharge to the groundwater basin occurs from the infiltration of rainfall, landscape irrigation, or leakage from sewer pipes. Recharge due to leakage from municipal water and sewer pipes accounts for about half of the total recharge of groundwater in the San Francisco area.²⁵³ Groundwater in the Downtown Basin is not currently used for water supply, nor do plans exist for this basin to be used for future water supply.

Depth to groundwater in the Hub Plan area ranges from 10 to 23 feet bgs.²⁵⁴ Groundwater at the 30 Van Ness Avenue project site ranges from 15 to 25 feet bgs and fluctuates about 2 feet seasonally.²⁵⁵ Similarly, groundwater at the 98 Franklin Street project site is about 15 to 20 feet bgs. Groundwater levels are expected to fluctuate seasonally a few feet.²⁵⁶

WATER QUALITY

The quality of the stormwater runoff from the Hub Plan area and surrounding development is typical of urban watersheds where water quality is affected primarily by discharges from both point and nonpoint sources. Point-source discharges are known sources of pollutants, such as

²⁵¹ Museum of California, *Mission Creek Watershed Map*, n.d., <http://explore.museumca.org/creeks/1640-RescMission.html#>, accessed: February 1, 2018.

²⁵² San Francisco Bay Regional Water Quality Control Board, *San Francisco Bay Basin (Region 2) Water Quality Control Plan*, 2007, last updated: May 4, 2017, https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html, accessed: February 1, 2018.

²⁵³ California Department of Water Resources, *California's Groundwater Bulletin 118, San Francisco Hydrologic Region, Downtown San Francisco Groundwater Basin*, February 27, 2004.

²⁵⁴ Geotechnical Consultants, Inc., *Draft Preliminary Geotechnical Hazard Assessment Memorandum: The Hub Plan, City of San Francisco, San Francisco, California*, n.d., Project No. SF18002.

²⁵⁵ Langan Engineering and Environmental Services, Inc., *Preliminary Geotechnical Study, 30 Van Ness Avenue*, Langan Project No. 73166790, July 7, 2017.

²⁵⁶ Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation 98 Franklin Street, 59 Oak Street, and 1576 Market Street*, Project 750612301, July 3, 2012.

outfalls, while nonpoint source discharges generally result from diffuse sources, such as land runoff, precipitation, or seepage. Water quality in the vicinity of the Hub Plan area is directly affected by stormwater runoff from adjacent streets and properties that deliver fertilizers, pesticides, automobile and traffic pollutants (e.g., oil, grease, metals), sediment with associated pollutants from soil erosion, trash, and other pollutants. The RWQCB has listed San Francisco Bay²⁵⁷ as an impaired water body for chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, dioxin compounds, furan compounds, invasive species, mercury, polychlorinated biphenyls (PCBs) (including dioxin-like compounds), selenium, and trash.²⁵⁸

GROUNDWATER QUALITY

Groundwater quality throughout most of the region is suitable for most urban and agricultural uses, with only local impairments. The primary constituents of concern are high total dissolved solids, nitrate, boron, and organic compounds. Although there is no published groundwater quality information available for the Downtown Basin, limited water quality data for the surrounding basins are available and show that the general character of groundwater for all basins beneath the entire San Francisco peninsula is similar. Groundwater beneath the San Francisco peninsula has a high mineral content and is considered generally “hard.” High concentrations of nitrates, iron, and manganese and elevated chloride, boron, and total dissolved solids concentrations are typically found in groundwater within the Downtown Basin. Elevated concentrations of nitrate and chloride are common, especially at shallower depths.^{259,260}

FLOODING

The San Francisco Interim Floodplain maps²⁶¹ adopted by the City indicate that the Hub Plan area, including the two individual development projects, and Hub HSD, are outside of a Special Flood Hazard Area. The San Francisco Public Utilities Commission developed a series of maps

²⁵⁷ This section of the Bay is known as *Central San Francisco Bay*, as defined by the State Water Resources Control Board for the 2014/2016 Integrated Report (Clean Water Act Section 303(d) List/305(b) Report). Central San Francisco Bay extends from approximately Oakland International Airport and Hunters Point on the south to San Pablo Bay on the north.

²⁵⁸ State Water Resources Control Board 2014/2016 *Integrated Report* (Clean Water Act Section 303(d) List/305(b) Report), last updated: 2016, https://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2014_2016.shtml, accessed: July 15, 2019.

²⁵⁹ California Department of Water Resources, *California’s Groundwater Bulletin 118, Update 2003, San Francisco Bay Hydrologic Region*, https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/Statewide-Reports/Bulletin_118_Update_2003.pdf, accessed: November 9, 2018.

²⁶⁰ California Department of Water Resources, *California’s Groundwater Bulletin 118, San Francisco Hydrologic Region, Downtown San Francisco Groundwater Basin*, February 27, 2004.

²⁶¹ City and County of San Francisco, *San Francisco Interim Floodplain Map, Northeast*, Final Draft, July 2008.

that identify areas of inundation along both the Bay and Pacific Ocean shorelines of San Francisco. The San Francisco Public Utilities Commission inundation maps evaluate scenarios that represent National Research Council projections of SLR in combination with the effects of storm surge.²⁶²

Based on the National Research Council's projected levels of SLR and consideration of a 100-year storm surge, the Hub Plan area, including the two individual development projects and Hub HSD, are not at risk of flooding by 2050 or 2100 under all scenarios analyzed.²⁶³

APPROACH TO ANALYSIS

THE HUB PLAN AND HUB HSD

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on hydrology and water quality could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. Therefore, this section evaluates hydrology and water quality impacts that could result from development proposed and approved pursuant to the

²⁶² Sewer System Improvement Program, *Climate Stressors and Impact: Bayside Sea-Level Rise Mapping*, Final Technical Memorandum, June 2014.

²⁶³ The San Francisco Public Utilities Commission scenarios represent projections of SLR in combination with the effects of storm surge and permanent inundation that could occur as a result of total water-level rise, based on daily tidal fluctuations. Each scenario also addresses temporary inundation that could occur from extreme tides and 1-year, 2-year, 5-year, 25-year, 50-year, and 100-year storm surge. The following scenarios are representative of Bay water elevations that could occur by 2050 and 2100, based on projected levels of SLR and consideration of a 100-year storm surge: 12 inches above 2000 mean higher high water (MHHW) (representative of projected SLR by 2050); 36 inches above 2000 MHHW (representative of projected SLR by 2100); 52 inches above year 2000 MHHW (representative of projected SLR by 2050 in combination with a 100-year storm surge); and 77 inches above 2000 MHHW (representative of projected SLR by 2100 in combination with a 100-year storm surge). Additional scenarios represent the maximum Bay water elevations that could occur by 2100, based on the upper range of SLR and consideration of a 100-year storm surge.

proposed planning policies and controls in the Hub Plan, including impacts resulting from proposed streetscape and street network changes, the two individual development projects, or the Hub HSD.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

INDIVIDUAL DEVELOPMENT PROJECTS

The individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and residents to the area, which could affect hydrology and water quality; therefore, they are analyzed on a project-specific level. The impact analysis for the two individual development projects evaluates whether they would affect hydrology and water quality or conflict with the applicable water resource policies of the City or the regional plans adopted for the purpose of avoiding or mitigating an environmental effect. Similar to the Hub Plan, a conflict between a proposed project and applicable water resource plans, policies, and regulations of an agency with jurisdiction over the project does not necessarily indicate a significant effect on the environment under CEQA. The analysis focuses on impacts related to hydrology and water quality for the two proposed individual development projects. All project elements were analyzed by comparing baseline conditions, as described under Setting, to conditions during construction and/or operation of the two individual development projects. The analysis focuses on issues related to surface hydrology, flood hazards, groundwater supply, and surface and groundwater quality.

IMPACTS AND MITIGATION MEASURES

Impact HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality and would not conflict with or obstruct implementation of a water quality control plan. (Less than Significant)

CONSTRUCTION

Implementation of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would include construction activities, such as asphalt demolition, rough grading and excavation, new building construction, paving, and landscaping. Land-disturbing activities and the placement of stockpiles in proximity to storm drain inlets or nearby surface waters may result in a temporary increase in sediment loads in San Francisco Bay. Pollutants, such as nutrients, trace metals, and hydrocarbons attached to sediment, can be transported with sediment to downstream locations and degrade water quality. The delivery, handling, and storage of construction materials and wastes (e.g., concrete debris), as well as the use of heavy construction equipment, could also result in stormwater contamination, thereby affecting water quality. Construction activities may involve the use of chemicals and operation of heavy equipment, which could result in accidental spills of hazardous materials (e.g., fuel and oil) during construction activities. Such spills could enter the groundwater aquifer or nearby surface water bodies from runoff or storm drains. Constituents in fuel, oil, and grease can be acutely toxic to aquatic organisms and/or bioaccumulate in the environment.

All project construction activities resulting from implementation of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be subject to existing regulatory requirements. Because the area of land disturbance for subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be more than 1 acre, construction activities would be required to comply with the Construction Site Runoff Control Ordinance. Further, an erosion and sediment control plan or SWPPP would be prepared, and a Construction Site Runoff Control Permit Application would be submitted to the San Francisco Public Utilities Commission. Standard erosion and sediment control measures and other housekeeping BMPs, such as vehicle and equipment maintenance, material delivery and storage, and solid waste management, would be identified in the SWPPP. The SWPPP would also identify pollution control practices that would be implemented, such as covering materials while entering and leaving the project site and using diversion berms to prevent pollutants from reaching stormwater runoff. Each subsequent individual development project approved under the Hub Plan that disturbs more than 1 acre would require a project-specific SWPPP and associated BMPs. Project-specific SWPPPs would

include erosion control and sedimentation measures. A separate erosion and sediment control plan may be required for approval of building, grading, or other associated permits. However, subsequent development projects that disturb less than 5,000 square feet would not need to apply for a Construction Site Runoff Control Permit and would not be subject to a SWPPP. Common best management practices, such as erosion and sediment controls, would be implemented to prevent pollution from leaving the construction site, regardless of any project-SWPPP requirements. These measures would be implemented during construction to reduce contamination and sedimentation in waterways. As a performance standard, BMPs included in the SWPPP would represent the best available technology that is economically achievable and the best conventional pollutant control technology to reduce pollutants. Commonly practiced BMPs consist of a wide variety of measures that can be implemented to reduce pollutants in stormwater and other nonpoint-source runoff. Permittees would also have to comply with the appropriate water quality objectives for the region. Other measures in the SWPPP would include a range of stormwater control BMPs (e.g., installing silt fences, staked straw wattles, or geofabric to prevent silt runoff to storm drains or waterways). Topsoil and backfill would be stockpiled, protected, and replaced at the conclusion of construction activities. Disturbed soil would be revegetated as soon as possible with the appropriate selection and schedule for turf, plants, and other landscape vegetation.

Stormwater within the Hub Plan area is collected in the City's combined sewer system. The federal Clean Water Act prohibits discharges of stormwater from construction projects unless the discharge is in compliance with a NPDES permit. Accordingly, construction stormwater discharges to the City's combined sewer system would be subject to the requirements of article 4.1 of the San Francisco Public Works Code (supplemented by San Francisco Public Works Order No. 158170). Provisions of article 4.1, referred to as the Sewer Use Ordinance, specify pollutant limitations for the discharge of wastewater into the City's sewerage collection system on a temporary basis. Such temporary, or "batch," discharges may result from dewatering construction sites, drilling wells to investigate or mitigate a contaminated site, using water for cleaning or hydrostatic testing of pipes or tanks, or conducting any other activity that generates wastewater, other than routine commercial or industrial processes. If the dewatered water is discharged to the City's combined sewer system, a batch wastewater discharges permit will need to be obtained. Article 4.1 also incorporates and implements the City's NPDES permit for the Southeast Plant, North Point Wet-Weather Facility, and all of the Bayside wet-weather facilities. This permit also incorporates the requirements of the federal Combined Sewer Overflow (CSO) Control Policy. At a minimum, the City requires project sponsors to develop and implement an erosion and sediment control plan to reduce the impact of runoff from a construction site. The plan must be reviewed and approved by the City prior to implementation. The City conducts periodic inspections to ensure compliance with the plan. Any stormwater drainage during construction that flows to the City's combined sewer system would receive treatment at the Southeast plant or other wet-weather facilities and be discharged

through an existing outfall or overflow structure, in compliance with the City's existing NPDES permit. Where proposed streetscape and street network changes would require excavation, erosion control measures would also be required, in accordance with article 4.1 of the San Francisco Public Works Code.

CONSTRUCTION DEWATERING

Construction dewatering in areas with shallow groundwater may be required during excavation activities for subsequent development projects that would be constructed under the Hub Plan and the two individual development projects which could result in exposure to pollutants from spills or other activities that may contaminate groundwater. Compliance with waste discharge requirements (WDRs) requires confirmation that discharges would not necessitate the construction or expansion of existing facilities. WDRs also include regulations specific to dewatering activities. If it is found that the groundwater does not meet water quality standards, it must either be treated, as necessary, prior to discharge so that all applicable water quality objectives (as designated in the Basin Plan) are met or hauled offsite for treatment and disposal at an appropriate waste treatment facility that is permitted to receive such water. If wells are to be used for groundwater dewatering during construction, the project would be required to comply with San Francisco's Soil Boring and Well Regulation Ordinance, adopted as article 12B of the San Francisco Health Code. Compliance with WDRs and other dewatering and groundwater regulations will ensure no violations of any water quality standards or WDRs. Dewatering would be required during construction at 30 Van Ness Avenue and may be required at 98 Franklin Street and during other construction activities occurring under subsequent development projects incentivized by the Hub Plan.

GROUNDWATER

Construction activities of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects could result in short-term surface and groundwater quality impacts associated with the input of sediment loads that exceed water quality objectives or chemical spills into storm drains or groundwater aquifers if proper minimization measures are not implemented. However, subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be required to comply with local stormwater and construction site runoff ordinances. These requirements involve development and implementation of a SWPPP, erosion and sediment control plan, and stormwater control plan specific to each project site to minimize water quality impacts related to spills or other activities that could contaminate groundwater. The plans would be developed according to the guidance provided in documents, such as the San

Francisco Public Utilities Commission's SMR and *Construction BMP Handbook*.²⁶⁴ In addition, subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be required to comply with hazardous material requirements, such as the San Francisco Maher Ordinance for soil and groundwater contamination and Spill Response and Countermeasure Plan (SPCC) requirements, as necessary.

If any groundwater produced during construction dewatering requires discharge to the combined sewer system, the discharge would be conducted in accordance with article 4.1 of the San Francisco Public Works Code, as supplemented by Order No. 158170, which regulates the quantity and quality of discharges to the combined sewer system. The discharge permit would contain appropriate discharge standards and may require installation of meters to measure the volume of the discharge. Although the groundwater could contain contaminants related to past site activities, as discussed in Section E.18, Hazards and Hazardous Materials, as well as sediment and suspended solids, the groundwater would be treated as necessary to meet permit requirements prior to discharge.

Compliance with WDRs and dewatering regulations will ensure that dewatering activities are monitored and treated as required and that no violations of any water quality standards or waste discharge requirements occur. Because subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be required to comply with the regulatory controls described above, potential water quality impacts associated with construction activities and degradation of water quality due to discharge of groundwater during construction would be reduced. In addition, during project operation, groundwater could exert hydrostatic pressure on subsurface vehicular parking or basement levels constructed as part of subsequent development projects under the Hub Plan and the two individual development projects. Permanent dewatering could be required to relieve this pressure.

The proposed streetscape and street network changes would very likely require only shallow excavation and thus would not extend to the groundwater table. In the event that groundwater dewatering would be required, the amount of dewatering would be minimal, and the groundwater would be discharged to the combined sewer system in accordance with article 4.1 of the San Francisco Public Works Code, supplemented by Order No. 158170, as discussed above.

There are no ponds or wetlands within the Hub Plan area. Because surface water features do not exist onsite, construction would not involve work within water features, and dredge and fill activities would not be necessary. Compliance with the local and state regulations would

²⁶⁴ California Stormwater Quality Association, *Construction BMP Handbook*, 2015, <https://www.casqa.org/resources/bmp-handbooks/construction>, accessed: February 9, 2018.

ensure that water quality standards, as defined by the Basin Plan, would be met; therefore, discharges would not violate any waste discharge requirements or otherwise substantially degrade water quality and would not conflict with or obstruct implementation of a water quality control plan.

As part the site permit process for projects resulting from the Hub Plan and the two individual development projects, an erosion control plan would be prepared. This would typically include strategies such as stabilized construction entrances, fiber rolls, silt fences, and inlet protection. Erosion control measure such as swaddles and storm catch basins would be used in compliance with an approved San Francisco Public Utilities Commission Construction Site Runoff Control permit. In addition, the contractor would follow plans provided by the civil engineer for erosion control.

During construction, the developer would be required to comply with stormwater management requirements of regulatory agencies, such as the RWQCB. Dust control measures would include watering down the site, washing off truck tires, and tarping truck loads. Final measures would be pre-approved in the required Site Mitigation Plan and Dust Monitoring Plan. Measures would be included in the specifications to control dust and spillage that would follow local, state, and federal laws to ensure that the project would not violate any water quality standards or waste discharge requirements.

Stormwater at the 30 Van Ness Avenue project site would be managed differently during different phases of construction. During excavation, runoff is anticipated to be filtered. Groundwater dewatering would also be required, which could produce a large quantity of water that would need to be properly disposed of. At the 98 Franklin Street project site, groundwater testing would be done prior to applying for the project's batch discharge permit. After analyzing the groundwater samples, the San Francisco Public Utilities Commission would determine whether approval of groundwater discharges from the dewatering system would be appropriate. A permit would be obtained from the San Francisco Public Utilities Commission prior to any groundwater discharge. If contamination is detected in the groundwater at levels greater than those established by the San Francisco Public Utilities Commission, groundwater would be properly treated prior to disposal by the contractor.²⁶⁵

CONCLUSION

Construction activities resulting from subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be required to comply with the regulatory controls described above and would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater

²⁶⁵ Treadwell & Rollo, A Langan Company, *Environmental Site Characterization, 98 Franklin Street, San Francisco, California*, Project No. 750612301, August 17, 2012.

quality and would not conflict with or obstruct implementation of a water quality control plan. Therefore, potential water quality impacts related to a violation of water quality standards, the degradation of water quality or stormwater runoff, or conflict with or obstruct implementation of a water quality control plan during construction of subsequent development projects and streetscape and street network improvements under the Hub Plan and the two individual development projects, would be *less than significant*.

Mitigation: None required.

OPERATION

Subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would involve operation and maintenance of residential uses, office and retail uses, and active public spaces, along with associated structured vehicular parking, open space, and landscaping. These land uses and operational activities could increase existing or generate new levels of potential pollutants of concern within the project area, such as trash, sediments, pesticides, bacteria, nutrients, metals, oils, and other toxins. These pollutants could reach surface waters in the vicinity through storm drains and ultimately discharge into San Francisco Bay.

Operation and maintenance activities associated with projects resulting from the Hub Plan and the two individual development projects would generate pollutants of concern from landscape maintenance, building maintenance, the storage of materials and substances, and vehicle use. In addition, restaurant uses can result in additional pollutants, such as organic materials (food waste) and oil and grease. However, good housekeeping practices, such as regular trash collection and sweeping, would continue to be implemented onsite.

Runoff from impervious surfaces could contain nonpoint pollution sources that are typical of urban settings. These are normally associated with automobiles, trash, cleaning solutions, and landscaped areas. Stormwater would be drained by new and existing pipes, drainage inlets, and other storm drain facilities, which would be connected to the existing combined sewer system that serves the Hub Plan area. All flows from the Hub Plan area would be treated at one of San Francisco's three wastewater treatment facilities, such as the Southeast plant or other wet-weather facility, prior to discharge through an existing outfall or overflow structure to the Bay.

The Hub Plan would include streetscape improvements and create public spaces. Stormwater management measures would rely on low-impact development (LID) techniques, such as green roofs, pervious pavement, rain gardens, or bio-retention areas, to reduce pollutant discharges. Stormwater management measures would be designed according to the SMR and comply with the SMR sizing criteria. The subsequent development projects incentivized by the Hub Plan, including the streetscape and street network improvements as well as the two individual development projects, would comply with the SMR for the management of stormwater prior to

discharge to the combined sewer system maintained by the San Francisco Public Utilities Commission. The Hub Plan and the two individual development projects would be designed to achieve compliance with San Francisco Public Utilities Commission SMR performance requirements, based on the capacity of the combined sewer system available in the Hub Plan area.

Compliance with the SMR would ensure that the Hub Plan and the two individual development projects would be in compliance with the stormwater requirements established by the San Francisco Public Utilities Commission. During operation at 30 Van Ness Avenue and 98 Franklin Street, the projects would comply with San Francisco stormwater management and non-potable water ordinances through a combination of landscaped areas, green roofs, rainwater harvesting, gray water collection, and dual plumbing. Both the Stormwater Management Ordinance and the Non-Potable Water Program requirements would apply to these projects. Furthermore, operation of the two individual development projects would conform to the stormwater management requirements of the San Francisco Public Utilities Commission and any other regulatory agencies, such as the RWQCB. Therefore, potential surface water quality impacts from operation of the subsequent development projects incentivized by the Hub Plan and the two individual development projects, would be *less than significant*.

Mitigation: None required.

Impact HY-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin or conflict with or obstruct implementation of a sustainable groundwater management plan. (Less than Significant)

CONSTRUCTION

Groundwater beneath the Hub Plan area ranges from approximately 10 to 23 feet bgs, with the potential for areas of shallow or perched groundwater from rainwater infiltration and/or landscaping irrigation (or other near-surface sources) throughout the area. Within the Hub Plan area, shallow groundwater within a USGS groundwater well was present at a depth of approximately 4 to 7 feet in the vicinity of Market and Oak streets.²⁶⁶ Although groundwater is present in the Hub Plan area, there is no sustainable groundwater management plan for this groundwater basin.

²⁶⁶ Cornerstone Earth Group, *Preliminary Geotechnical Investigation, Market & Oak Street Residential Development Project*, Number 206-15-2, January 23, 2013.

The maximum excavation depth may vary across the Hub Plan area, depending on project design and features, such as underground vehicular parking or basements. Construction dewatering in areas of shallow groundwater may be required during excavation activities, which could result in a temporary reduction in groundwater volumes. In the event that groundwater is encountered during construction, dewatering would be conducted on a one-time or temporary basis during the construction phase but would not result in a loss of water that would substantially decrease groundwater supplies or conflict with or obstruct implementation of a sustainable groundwater management plan. If wells are to be used for groundwater dewatering during construction, projects would be required to comply with San Francisco's Soil Boring and Well Regulation Ordinance. Approval from the Department of Toxic Substances Control must be obtained prior to excavation or other soil-disturbing activities to reduce impacts on groundwater sources. In addition, dewatering would not decrease groundwater resources because the Downtown Basin is not used for water supply, and there are no plans for development of this basin for groundwater production. The water supply for construction (e.g., concrete mixing, material washing) would most likely come from nearby hydrants and/or be trucked to the site. San Francisco Public Works Code article 21 restricts the use of potable water for soil compaction and dust control activities undertaken in conjunction with any construction or demolition project occurring within the boundaries of the city, unless permission is obtained from the San Francisco Public Utilities Commission. Non-potable water must be used for soil compaction and dust control activities during project construction or demolition. Recycled water is available from the San Francisco Public Utilities Commission for dust control on roads and streets. The San Francisco Public Utilities Commission operates a recycled water truck-fill station at the Southeast Water Pollution Control Plant that provides recycled water for these activities. However, per state regulations, recycled water cannot be used for demolition, pressure washing, or dust control through aerial spraying.

Repaving, construction of wider sidewalks and sidewalk bulb-outs, and the installation of mid-block crosswalks would be included in the proposed streetscape and street network changes. However, the proposed streetscape and street network changes would not include construction of new structures that would extend below the groundwater table or increase the amount of impervious surfaces.

Groundwater at the 30 Van Ness Avenue project site is anticipated to be approximately 20 feet bgs but could range from 15 to 25 feet bgs; therefore, excavation may extend to groundwater. Dewatering will most likely be required. The presence of the BART/Muni tunnels and Van Ness Station south of the site would affect the selection of foundation, shoring, and dewatering systems for the proposed development at 30 Van Ness Avenue. BART restricts groundwater lowering to no more than 2 feet at its facilities; therefore, a cutoff wall would be used for shoring if this condition occurs. To reduce the drawdown of groundwater outside the 30 Van Ness Avenue site (i.e., along Market Street, next to BART), a relatively impervious shoring wall

would be used, extending at least 25 feet below the bottom of excavation. The actual depth would be determined during the final geotechnical investigation.²⁶⁷ Currently, the 30 Van Ness Avenue project site is 100 percent impervious, and there is no potential for ground recharge. However, groundwater recharge could be improved with the implementation of new pervious surfaces at the 30 Van Ness Avenue project site.

The depth of groundwater at the 98 Franklin Street project site ranges from 15 to 20 feet bgs; dewatering may be required during construction. Similar to the 30 Van Ness Avenue Project, the BART/Muni tunnels southeast of the site may affect the selection of foundation, shoring, and dewatering systems for the proposed development. Dewatering would be monitored to detect changes in the groundwater level. If the existing groundwater level is expected to drop by more than 2 feet, a recharge program would be required.²⁶⁸ Currently, the 98 Franklin Street project site is 100 percent impervious; there is no potential for groundwater recharge. The proposed project at 98 Franklin Street would result in a similar amount of impervious surfaces on the site after removing the existing surface vehicular parking lot and developing the site with a building that would not include any permeable surfaces, resulting in no change to groundwater recharge.

CONCLUSION

During construction activities for subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be required to comply with the regulatory controls described above. They would not substantially decrease groundwater supplies, interfere substantially with groundwater recharge, or conflict with or obstruct implementation of a sustainable groundwater management plan. Potential groundwater impacts associated with construction activities and degradation of the groundwater supply would be *less than significant*.

Mitigation: None required.

OPERATION

Natural groundwater recharge in the Downtown Basin occurs primarily from the infiltration of rainfall, landscape irrigation, or leakage from sewer pipes. New impervious areas can reduce infiltration capacities so that more precipitation runs off into storm sewers or nearby surface waters instead of infiltrating and recharging the underlying aquifer. However, implementation of the Hub Plan and the two individual development projects would not interfere with

²⁶⁷ Langan Engineering and Environmental Services, Inc., *Preliminary Geotechnical Study 30 Van Ness Avenue*. Langan Project No. 73166790, July 7, 2017.

²⁶⁸ Treadwell & Rollo, A Langan Company, *Preliminary Geotechnical Evaluation, 98 Franklin Street, 59 Oak Street, and 1576 Market Street, Project 750612301*, July 3, 2012.

groundwater recharge because, under existing conditions, the Hub Plan area is almost completely covered with impervious surfaces. Projects constructed pursuant to the Hub Plan, as well as the two individual development projects, would not increase impervious surface coverage or otherwise reduce infiltration or the size of groundwater recharge areas.

During project operation, groundwater could exert hydrostatic pressure on subsurface vehicular parking or basement levels constructed as part of subsequent development projects under the Hub Plan or the two individual development projects. Permanent dewatering could be required to relieve this pressure.

The Hub Plan area, including the streetscape and street network improvements, and the two individual development projects would include public open spaces. Stormwater controls implemented pursuant to article 4.2 of the San Francisco Public Works Code and the SMR could include stormwater BMPs to promote the infiltration of stormwater, such as decreasing the amount of existing impervious surfaces, which may increase recharge to the groundwater basin. The proposed individual developments at 30 Van Ness Avenue and 98 Franklin Street would include 32,580 and 33,940 square feet, respectively, of new open space. Open space would include courtyards, plazas, roof decks, balconies, and public mews with features such as plantings and landscaped plazas. New open space would allow for an increase in groundwater recharge potential, depending on the type of open space and design feature. Stormwater treatment areas, such as on-grade stormwater planters, permeable pavers, and other landscape features, would also be included, allowing for increased groundwater infiltration. Operation of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would not use groundwater supplies or increase groundwater demand; therefore, operations would not substantially decrease groundwater supplies or conflict with or obstruct implementation of a sustainable groundwater management plan. The impact of the subsequent development projects incentivized by the Hub Plan and the two individual development projects, on groundwater supplies and recharge would be *less than significant*.

Mitigation: None required.

Impact HY-3: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would result in substantial erosion or siltation onsite or offsite. (Less than Significant)

CONSTRUCTION

Construction activities from subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would include implementation of BMPs, as described in the respective project's SWPPP, to minimize the potential for erosion and

sedimentation in nearby storm drains and temporary changes in drainage during construction. For example, exposed stockpiles of dirt or other loose, granular construction materials that could contribute sediment to waterways would be enclosed and covered. Efforts would be made by the contractor to conduct the majority of land-disturbing work outside of the typical wet season and minimize the potential for large rain events to mobilize loose sediment during construction.

Where possible, soil excavated onsite would be stockpiled onsite for reuse where required. However, soil import and export would be necessary during demolition, grading, and building phases. For projects that disturb more than 5,000 square feet, an erosion and sediment control plan must be submitted, further reducing the potential for substantial erosion or siltation onsite/offsite because the erosion and sediment control plan would comprise a site-specific plan that would detail the use, location, and placement of sediment and erosion control devices. All subsequent development projects incentivized in the Hub Plan area as well as the sites for the two individual development projects would be required to comply with existing requirements and the City's Construction Site Runoff Control Ordinance. The NPDES permit requires stormwater discharges not to contain pollutants that cause or contribute to an exceedance of any applicable water quality objectives or water quality standards, including designated beneficial uses of surface waters. The monitoring requirements for San Francisco Public Works Code (article 4.1) and other city inspections would help determine whether the installed and maintained BMPs would prevent pollutants that may cause or contribute to an exceedance of water quality standards from being discharged from the site. There are no streams or rivers within the Hub Plan area; therefore, subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would not alter the course of an existing stream or river.

Repaving, construction of wider sidewalks and sidewalk bulb-outs, and the installation of mid-block crosswalks would be conducted as part of the Hub Plan's proposed streetscape and street network changes. However, the proposed streetscape and street network changes would not include construction of any facilities that would increase the amount of impervious surfaces or change stormwater flows to the combined sewer system. Therefore, construction impacts under the Hub Plan and the two individual development projects, related to the alteration of drainage patterns in a manner that would result in erosion or siltation would be *less than significant*.

Mitigation: None required.

OPERATION

Currently, the Hub Plan area is almost entirely paved or otherwise covered with impervious surfaces. Although drainage patterns in the Hub Plan area would be altered, drainage would ultimately be improved. Replacement of impervious surfaces as part of development projects

that could be proposed and approved pursuant to the Hub Plan would not increase the rate, duration, or quantity of stormwater because these projects would implement stormwater control measures required by article 4.2 of the San Francisco Public Works Code and the SMR. In addition, the Hub Plan and the two individual development projects would incorporate new open spaces. As noted previously, the proposed individual development projects at 30 Van Ness Avenue and 98 Franklin Street would include 32,580 and 33,940 square feet, respectively, of new open space. The conversion of existing, largely impervious areas to additional new open space would allow for an increase in pervious surfaces within the Hub Plan area. Additionally, stormwater treatment areas, such as bio-retention areas, on-grade stormwater planters, and other landscape features, would provide additional pervious surfaces and minimize runoff, erosion, and siltation.

Operation of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would also require soil stabilization (e.g., vegetation or other protective cover, stabilized slopes and fills) in accordance with San Francisco stormwater requirements. With implementation of LID features, such as bio-retention areas, permeable pavers, and additional open space, the potential for erosion and siltation under the Hub Plan and at the two individual development projects would be reduced. In addition, operations under the Hub Plan and the two individual development projects would not alter the course of an existing stream or river because these features do not exist onsite. Therefore, impacts related to substantial erosion or siltation onsite or offsite from project alterations to existing drainage patterns would be *less than significant*.

Mitigation: None required.

Impact HY-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, or substantially increase the rate or amount of surface runoff in manner that would result in flooding onsite or offsite. (Less than Significant)

CONSTRUCTION

Project construction activities under subsequent development projects incentivized by the Hub Plan as well as the two individual development projects may alter existing drainage patterns and result in temporary increases in the rate or amount of local surface runoff (onsite) and temporary flooding. Stormwater would be conveyed to the existing combined stormwater system that serves the Hub Plan area and the individual project sites. In the event of a storm, an overland release, the combined stormwater system, or street grading would convey stormwater runoff.

Repaving, construction of wider sidewalks and sidewalk bulb-outs, and the installation of mid-block crosswalks would be conducted as part of the Hub Plan's proposed streetscape and street network changes. However, the proposed streetscape and street network changes would not include construction of any facilities that would increase the amount of impervious surfaces or change stormwater flows to the combined sewer system.

Although drainage patterns within the Hub Plan area and on the individual project sites would be altered, drainage would ultimately be improved because implementation of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would result in new drainage infrastructure and connections to the existing combined stormwater system that serves the area. Preparation and implementation of the project SWPPP would reduce the potential for flooding onsite and offsite as a result of altering existing drainage patterns or substantially increasing the rate or amount of runoff. As part of the SWPPP, erosion and sediment control measures, such as silt fences and straw wattles to prevent sediment from entering storm drains and surface waters, would be implemented during construction. Construction within the Hub Plan area and at the two individual development project sites would be required to comply with existing NPDES permit requirements and the City's Construction Site Runoff Control Ordinance. In addition, the SWPPP is required to include a description of all post-construction BMPs. Preparation and implementation of the grading plan and the SWPPP would reduce the potential for a substantial increase in the rate or amount of runoff as well as the potential for flooding onsite or offsite. Each subsequent individual development project approved under the Hub Plan, including the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would be required to comply with local and regional stormwater management requirements to effectively manage stormwater, including addressing the full suite of storm events, consideration of water quality, overbank flood protection, and extreme flood protection. Through compliance with these regulations, this impact would be *less than significant*.

Mitigation: None required.

OPERATION

Surface runoff within the Hub Plan area would be collected by the combined sewer system and comply with performance requirements, which would be based on existing site imperviousness. For future projects within the Hub Plan area, with existing imperviousness greater than 50 percent, the stormwater runoff rate and volume must be reduced by 25 percent relative to pre-development conditions for the 2-year, 24-hour design storm. The project design would incorporate soil stabilization measures (e.g., vegetation and other protective cover, stabilized slopes and fills) as part of stormwater management measures, in accordance with San Francisco stormwater requirements. LID techniques within the Hub Plan area, such as bio-retention areas and permeable pavers, would allow for infiltration and minimize runoff volumes as well as the potential for ponding and onsite or offsite flooding during rain events. Because subsequent

development projects incentivized by the Hub Plan as well as the two individual development projects would involve the creation and/or replacement of 5,000 square feet or more of impervious surface, the subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be subject to San Francisco's stormwater management requirements, as outlined in the the SMR, including the Combined Sewer Area Performance Requirements.

The projects at 30 Van Nees Avenue and 98 Franklin Street would be subject to regulations and design criteria to reduce potential flooding impacts associated with alterations to drainage patterns. Stormwater flows and retention would meet existing requirements. The two proposed individual development projects would also provide new plantings and street trees, in accordance with the Better Streets Plan. Because the project sites are in an area with a combined sewer system, pipe capacity is dependent on the amount of stormwater runoff from the sites that would be added to the system. This quantity would represent how much impervious area the proposed site would have and how much of the stormwater runoff would be detained or reused onsite. Capacity would need to be confirmed with the San Francisco Public Utilities Commission's Collection Systems Division. In addition, because the proposed improvements would be likely to disturb more than 5,000 square feet of impervious surface and the site uses a combined sewer system, the San Francisco Public Utilities Commission's Urban Watersheds Division would require a stormwater control plan that follows criteria similar to that for LEED Credit 6.1. This states that a stormwater management plan and design that results in a 25 percent decrease in the volume and peak flow of stormwater runoff from the 2-year, 24-hour design storm must be created. There are several different methods for accomplishing this goal, such as using landscaping and pervious paving or capturing stormwater in a tank system for treatment and non-potable reuse. Such designs are based on the proposed amount of impervious area and the proposed site layout.

The two individual development projects must prepare stormwater control plans, demonstrating project adherence to the performance measures outlined in the SMR, including a reduction in the total volume and peak flow rate of stormwater in areas with combined sewer systems. Therefore, impacts related to altering existing drainage patterns or substantially increasing the rate or amount of runoff would be *less than significant*.

Mitigation: None required.

Impact HY-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street and, would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. (Less than Significant)

CONSTRUCTION

During construction under subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, projects would be required to meet several criteria (e.g., stormwater control plan, erosion and sediment control plan, Construction Site Runoff Ordinance). To meet these criteria, projects would be designed for the 2-year, 24-hour storm event, and BMPs would be implemented to control construction site runoff and pollutants, reduce the discharge of pollution to the combined stormwater system, and ensure sufficient storm drain capacity for subsequent development projects incentivized by the Hub Plan as well as the two individual development projects. The subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would not create or contribute runoff that would exceed the capacity of the existing stormwater drainage systems or provide substantial additional sources of polluted runoff. In addition, the proposed streetscape and street network changes would not include construction of any facilities that would increase the amount of impervious surfaces or change stormwater flows to the combined sewer system. Therefore, the impact associated with project construction under the Hub Plan and the two individual development projects, would be *less than significant*.

Mitigation: None required.

OPERATION

Subsequent development projects that discharge stormwater to the combined sewer system must comply with article 4.2 of the San Francisco Public Works Code. In accordance with the SMR, development projects that could be proposed and approved pursuant to the Hub Plan, including the two individual development projects, and disturb more than 5,000 square feet of land would be required to implement low-impact design stormwater control measures to achieve the standards specified in LEED® SS6.1 (Stormwater Design: Quantity Control) to minimize the flow and volume of stormwater to the combined sewer system. For sites with more than 50 percent impervious surfaces, such as the Hub Plan area and the sites for the two individual development projects, the project sponsor must implement a stormwater management plan that results in a 25 percent decrease in the volume of stormwater runoff from the 2-year, 24-hour design storm compared with conditions without a management plan. The existing Hub Plan area and the sites for the two individual development projects are covered predominantly by impervious surfaces; therefore, the amount of new impervious surfaces due to development projects under the Hub Plan and the two individual

development projects, would be minimal and would not increase stormwater runoff rates and volumes because the areas are already developed. The majority of projects would be required to achieve a 25 percent reduction in stormwater flows.²⁶⁹

Designs for subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would include stormwater management measures, such as bio-retention, on-grade stormwater planters, and additional open space, which would reduce the volume of runoff entering the storm sewer system. Subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would be designed to meet the SMR and required to implement stormwater treatment measures to meet the guidelines prior to connecting to the combined sewer system. Implementation of stormwater controls for individual projects developed pursuant to the Hub Plan and the two individual development projects, in accordance with the SMR, would reduce the quantity and rate of stormwater runoff to the City's combined sewer system and improve the water quality of those discharges. Runoff water from subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would not exceed the capacity of the existing combined stormwater system and would not provide substantial additional sources of polluted runoff. This impact would be *less than significant*.

Mitigation: None required.

Impact HY-6: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impede or redirect floodflows. (No Impact)

The Hub Plan seeks to encourage housing through changes to current zoning controls, which would include changes to building heights for select sites to allow more housing. However, as noted under Setting, the Hub Plan area, including the two individual development project sites, are outside of a Special Flood Hazard Area, as indicated by San Francisco Interim Floodplain maps adopted by the City. Therefore, housing and structures would not be placed within a 100-year flood hazard zone and would not impede or redirect floodflows. The Hub Plan and project-specific development would not exacerbate flood impacts.

The Hub Plan area is predominantly impervious. Design features such as additional open spaces would reduce the amount of impervious area, thereby reducing floodflows. Subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would not result in additional stormwater discharges or other discharges that would

²⁶⁹ For sites with less than 50 percent impervious surfaces, this standard requires project sponsors to implement a stormwater management plan to prevent the post-development peak discharge rate and quantity from exceeding the pre-development peak discharge rate and quantity for the 2-year 24-hour design storms. However, this condition would apply to few, if any, sites in the Hub Plan area.

increase the frequency or severity of flooding. Subsequent development projects incentivized by the Hub Plan would be designed in accordance with applicable regulations, including the SMR, and a stormwater control plan.

All new developments are required to ensure that flooding would not increase and floodflows would not be redirected to areas that are not currently prone to flooding. Development within the Hub Plan area would not impede flows. There would be no changes with respect to existing buildings impeding or redirecting floodflows. In addition, development within the individual project sites would not impede stormwater flows. Furthermore, as indicated on the San Francisco Public Utilities Commission inundation maps, the Hub Plan area and the sites for the two individual development projects are not at risk of flooding with mid-century SLR in addition to a 100-year storm surge or end-of-century SLR in addition to a 100-year storm surge.²⁷⁰ Therefore, subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would not place housing or structures within a 100-year flood zone, exacerbate the frequency or severity of flooding, cause flooding in areas with housing that otherwise would not be subject to flooding, or impede or redirect floodflows without the Hub Plan or the two individual development projects, and there would be *no impact*.

Mitigation: None required.

Impact C-HY-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with past, present, and reasonably foreseeable future projects in the vicinity, would not contribute considerably to cumulative impacts on hydrology and water quality (Less than Significant).

The geographic context for the analysis of cumulative impacts associated with surface hydrology and water quality is the Visitacion Valley-Frontal San Francisco Bay Estuaries subwatershed. The context for groundwater hydrology is the Downtown Basin of the larger San Francisco Bay Hydrologic Region. The Visitacion Valley-Frontal San Francisco Bay Estuaries subwatershed is considered already built out. Consequently, potential growth would most likely occur as redevelopment and not extensive new development on vacant land or open space. The context for cumulative hydrology and water quality impacts is geographic and a function of whether impacts could affect surface water features/watersheds, the city's storm drainage system, or groundwater, each of which has its own physical boundary. This analysis accounts for anticipated cumulative growth within the potentially affected geographic area.

²⁷⁰ San Francisco Public Utilities Commission, *Climate Stressors and Impact: Bayside Sea Level Rise Mapping Final Technical Memorandum*, 2014.

Development incentivized by the Hub Plan as well as the two individual development projects, combined with other past and future development or redevelopment within the potentially affected geographic area, could degrade stormwater quality through an increase in impervious surface area and an increase in contaminated runoff. This could ultimately violate water quality standards, affect beneficial uses, and/or further impair 303(d)-listed waters within the Visitacion Valley-Frontal San Francisco Bay Estuaries subwatershed (of the larger San Francisco Bay watershed) and the Downtown Basin. The quality of stormwater runoff varies with surrounding land uses, topography, and the amount of impervious cover as well as the intensity (energy) and frequency of irrigation or rainfall. Other development could affect water quality if the land use changes, the intensity changes, and/or drainage conditions are altered to facilitate the introduction of pollutants to surface or groundwater resources. During construction, runoff may contain sediments and other construction materials and wastes, resulting from activities such as site clearing and grubbing, demolition, grading and excavation, paving, building construction, and landscaping. During operation in urban areas, street surfaces are the primary source of pollutants, which may include oil, grease, and metals that accumulate in streets as well as pesticides, particulate matter, nutrients, and animal waste from landscaped areas.

Implementation of appropriate regulatory requirements would ensure that subsequent development projects incentivized by the Hub Plan as well as the two individual development projects would result in less-than-significant impacts related to erosion, stormwater discharges to the combined sewer system, alteration of drainage patterns, storm sewer system capacity, and flooding under existing conditions. The applicable regulations, which have been developed to protect water quality, as defined in the Basin Plan, require implementation of stormwater BMPs. Construction of nearby projects would be subject to the requirements of the San Francisco Public Utilities Commission's Construction Site Runoff Ordinance, which would prevent short-term (construction) impacts on water quality. Compliance with article 4.1 of the San Francisco Public Works Code and public works Order No. 158170 (including implementation of an erosion control plan) would ensure that all discharges to the combined sewer system would comply with the City's NPDES permit for the Southeast Plant, North Point Wet-Weather Facility, and Bayside wet-weather facilities and would not result in a violation of water quality standards.

Compliance with article 4.2 of the San Francisco Public Works Code and Stormwater Design Guidelines by all future development projects would also ensure that cumulative impacts related to the alteration of drainage patterns or an exceedance of storm sewer capacity would be less than significant. This is primarily because most projects would be required to reduce stormwater flows from the site by 25 percent.

Most reasonably foreseeable projects in the Downtown San Francisco groundwater basin would be redevelopment or infill projects in highly urbanized areas where recharge would not occur. Future development projects would be required to implement LID stormwater controls to improve the infiltration of stormwater, as required by the San Francisco Stormwater Design Guidelines, which may increase groundwater recharge to the groundwater basin. Furthermore, a reduction in the amount of impervious area and increased groundwater recharge would reduce floodflows.

Groundwater within the Downtown Basin is not used for water supply. Therefore, the water supply necessary for construction and operation of other development projects would not reduce the volume of groundwater within the Downtown Basin. Because of the lack of groundwater use and the presence of existing impervious surfaces in the area, impacts related to implementation of the Hub Plan and the two individual development projects would not be cumulatively considerable and would be less than significant with respect to any potential cumulative loss of groundwater recharge and supply.

Because the Hub Plan and the two individual development projects, as well as other foreseeable projects in the vicinity, would be required to comply with regulations, cumulative impacts related to hydrology and water quality would be *less than significant*.

Mitigation: None required.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
18. HAZARDS AND HAZARDOUS MATERIALS.					
Would the project:					
a) Create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard for the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, create a significant hazard for the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

None of the project’s components, including the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, are within an airport land use plan area, nor are they within two miles of a public airport or public use airport. In addition, the Hub Plan, the sites for the two individual development projects, and Hub HSD are surrounded by urban development. They are not mapped as being in or adjacent to a Very High Fire Hazard Severity Zone.²⁷¹ Therefore, topics 18f and 18h are not applicable to any of the project’s components and will not be addressed further in the initial study.

²⁷¹ California Department of Forestry and Fire Protection, *Draft Fire Hazard Severity Zones in LRA: San Francisco County*, http://frap.fire.ca.gov/webdata/maps/san_francisco/fhszl06_1_map.38.pdf, accessed: March 3, 2018.

SETTING

CURRENT AND HISTORIC LAND USES

THE HUB PLAN AND HUB HSD

The Hub Plan area, which includes the Hub HSD, is a large geographic area that is heavily developed with a variety of land uses with a history of hazardous materials use. This variation in land uses (particularly industrial and commercial land uses) and history of hazardous materials use can lead to hazardous materials impacts.

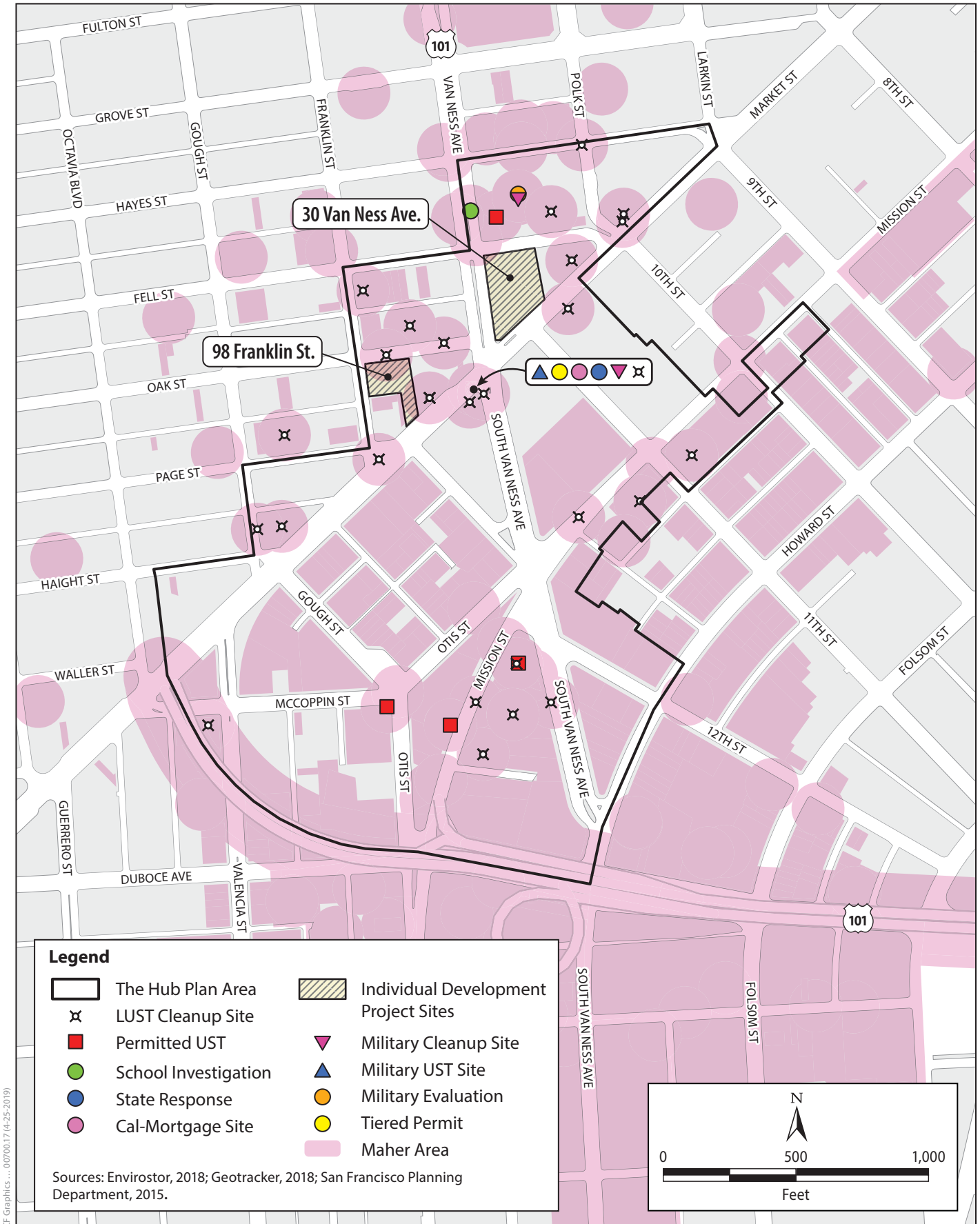
Industrial land uses (e.g., automotive repair, construction services), such as those found throughout the Hub Plan area, can encompass a wide range of business operations with the potential to result in hazardous materials impacts. Industrial facilities store hazardous materials in underground storage tanks (USTs), aboveground storage tanks, and in designated storage locations. Age and improper storage tank maintenance in the Hub Plan area have been the common causes for soil and groundwater contamination. In addition, improper handling and storage of hazardous material containers can lead to hazardous material incidents.

Commercial land uses found in the Hub Plan area include vehicle repair sites, gasoline fueling stations, and dry-cleaning facilities. Similar to industrial facilities, some commercial sites often store hazardous materials in storage tanks or designated areas within the facility. Hazardous materials spills and leaks in vehicle repair and fueling locations can lead to hydrocarbon-contaminated soil and groundwater. Improper storage and use of hazardous materials in dry cleaning facilities can lead to contaminated soil and groundwater.

A review of the SWRCB's GeoTracker and the Department of Toxic Substances Control's (DTSC's) EnviroStor websites identified a total of 25 leaking underground storage tank (LUST) cleanup sites, four permitted UST sites, one School Investigation site, one Military Evaluation site, two Military Cleanup sites, one Military UST site, one Tiered Permit site, one State Response site, and one Cal-Mortgage site within the Hub Plan area. Some facilities can be found in multiple databases; therefore, the actual number of facilities can be less than the total number of sites denoted (sites identified during the database review are mapped in **Figure E.18-1**).

The database definitions are as follows:

- **LUST Cleanup Sites:** Includes all UST cleanup sites that have had an unauthorized release (i.e., leak or spill) of a hazardous substance, usually fuel hydrocarbons, and are being (or have been) cleaned up. LUST cleanup sites consist almost entirely of fuel-contaminated LUST cleanup sites (also known as leaking underground fuel tank, or LUFT, sites), which are regulated pursuant to Title 23 of the California Code of Regulations, chapter 16, article 11.
- **Permitted UST Sites:** Includes facilities at which the owner or operator has been issued a permit to operate one or more USTs by the local permitting agency.



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The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure E.18-1
Location of Sites Identified by Hazardous Materials Database Review

- **School Investigation Sites:** Identifies proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. School sites are further defined as Cleanup (remedial action occurred) or Evaluation (no remedial action occurred) sites, based on completed activities. All proposed school sites that will receive state funding for acquisition or construction are required to go through a rigorous environmental review and cleanup process under DTSC's oversight.
- **Military Evaluation Sites:** Identifies suspected but unconfirmed contaminated military sites that need to go through or have gone through a limited investigation and assessment process. If a site is found to have confirmed contamination, it will change from an Evaluation site to either a State Response or Voluntary Cleanup site. Sites that have no contamination at the completion of the limited investigation and/or assessment process receive a No Action Required (for phase I assessments) or No Further Action (for preliminary environmental assessments or phase II assessments) determination.
- **Military Cleanup Sites:** Includes all cleanup sites on existing military bases (or to be transferred). Military Cleanup sites include a wide range of discharges but are regulated primarily under Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act standards by each of the nine RWQCBs.
- **Military UST Site:** Includes all petroleum-related LUST cleanup sites on existing military bases (or to be transferred) and regulated by the SWRCB and/or one of the nine RWQCBs. Military LUST are thus regulated under Title 23 of the California Code of Regulations, chapter 16, article 11.
- **Tiered Permit Site:** Refers to a corrective action cleanup project at a hazardous waste facility that was either eligible to treat or permitted to treat waste under the Tiered Permitting System. Facilities in this category fall under the Permit by Rule tier or Conditionally Authorized or Exempt tiers.
- **State Response Site:** Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority sites with high potential risk.
- **Cal-Mortgage:** Refers to properties where DTSC performs environmental assessments for the Office of Statewide Planning and Development, Cal-Mortgage Loan Insurance Division, a sister agency and part of the real estate due diligence process under a memorandum of understanding for a guaranteed loan insurance program for construction, improvement, and expansion of various health care facilities.

30 VAN NESS AVENUE

By 1886, the 30 Van Ness Avenue property was developed with small stores and stables. The first and second floors of the existing building at 30 Van Ness Avenue were constructed in 1908; floors three through five were constructed above the original structure in 1964. From as early as 1910, the building housed a paint and varnish company. By 1913, and most likely continuing through at least the 1930s, the building was an auto sales/repair facility and a print shop. From the 1940s to the present, the building was used primarily as retail and office space.

The phase I environmental site assessment (ESA) prepared for the 30 Van Ness Avenue project site identified a Recognized Environmental Condition (REC) because the northwest corner of the site is within a Maher area.²⁷² The Maher Ordinance is discussed in more detail in the Regulatory Framework for Onsite Hazardous Materials section of HZ-2, below.

Because of the age of the building (1908, with additions in 1964), the phase I ESA²⁷³ noted that asbestos-containing material (ACM) and lead-based paint (LBP) are likely to be present. An asbestos and lead materials assessment²⁷⁴ was prepared in February 2017. During the assessment, ACMs were identified in several areas, including resilient floor tiles, floor mastic, black pipe insulation, wall and ceiling textures, wall panels, and joint compound. In addition, other materials were presumed to contain asbestos. LBP was identified in ceramic floor tiles, restroom stall dividers, hallway paint, wallboards, and concrete columns. Lead-containing paint was identified in ceramic floor tiles, wall paint (of various colors) throughout building, paint on concrete in some areas, and paint on doors throughout building.

98 FRANKLIN STREET

Historically, the 98 Franklin Street site was occupied by residential dwellings, stores, auto repair shops, a mattress factory, offices, and a self-service gasoline station (from approximately 1949 to 1965).

According to the phase I ESA²⁷⁵ prepared for the 98 Franklin Street project site, the site is in an area with artificial fill that is known to contain various contaminants from unknown sources. The fill material (from the surface to 14 feet bgs) is composed of loose to medium-dense silty

²⁷² The Maher area includes areas that are currently or were previously zoned as industrial; areas with current or previous industrial land uses; areas within 150 feet of U.S. 101, I-80, or I-280; areas of bay fill; areas within 100 feet of a known hazardous waste site; and areas within 100 feet of an underground storage tank.

²⁷³ AllWest Environmental, Inc., *Phase I Environmental Site Assessment: The Herbst Building, 26–90 Van Ness Avenue and 1484–1496 Market Street, San Francisco, California*, March 28, 2015.

²⁷⁴ AllWest Environmental, Inc., *Asbestos and Lead Materials Assessment: 30 Van Ness, San Francisco, California 94103*, February 9, 2017.

²⁷⁵ Treadwell & Rollo, *Phase I Environmental Site Assessment: 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, August 16, 2012.

sand with varying amounts of brick, wood, metal, and glass fragments. The fill material underlying the project site is very likely associated with the 1906 earthquake and resulting fire. Elevated levels of metal and petroleum hydrocarbons were identified at other properties in the area with the same fill material. Therefore, the potential exists for onsite soil to contain elevated concentrations of heavy metals, diesel fuel, motor oil, and polycyclic aromatic hydrocarbons.²⁷⁶

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. The proposed rezoning would be done to allow and incentivize more housing, including below-market-rate housing, within the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on hazards and hazardous materials could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect hazards and hazardous materials; therefore, they are analyzed on a project-specific level. Therefore, this section evaluates potential hazards and hazardous materials impacts that would result from the increase in density and construction due to implementation of the Hub Plan and Hub HSD and from implementation of the two individual development projects.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural

²⁷⁶ Treadwell & Rollo, *Environmental Site Characterization: 98 Franklin Street, San Francisco, California*, August 17, 2012.

change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

The following analysis is based on information from the following data sources:

- The aforementioned reports prepared for the two individual project sites
- SWRCB's GeoTracker website (for the Hub Plan area)²⁷⁷
- DTSC's EnviroStor website (for the Hub Plan area)²⁷⁸

IMPACTS AND MITIGATION MEASURES

Impact HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)

The following discussion presents the relevant regulatory framework for evaluating the handling of hazardous materials, followed by an impact discussion.

REGULATORY FRAMEWORK FOR HAZARDOUS MATERIALS HANDLING

The following regulations and articles from the San Francisco Health Code, implemented by the public health department, apply to the handling and storage of hazardous materials:

- **SWPPP** – See definition of SWPPP in Section E.17, Hydrology and Water Quality.
- **Article 21** – Provides for safe handling of hazardous materials in the city. It requires any person or business who handles, sells, stores, or otherwise uses specified quantities of hazardous materials to keep a current certificate of registration and implement a hazardous materials business plan. A special permit is required for USTs. This article also incorporates state regulations controlling underground storage tanks.
- **Article 21A** – Provides for safe handling of federally regulated hazardous, toxic, and flammable substances in the city, requiring businesses that use these substances to register with the public health department and prepare a risk management plan that includes an assessment of the effects of an accidental release and programs for preventing and responding to an accidental release.

²⁷⁷ State Water Resources Control Board, *GeoTracker*, 2015, <https://geotracker.waterboards.ca.gov/>, accessed: July 15, 2019.

²⁷⁸ Department of Toxic Substances Control, *EnviroStor*, 2018a, <http://www.envirostor.dtsc.ca.gov/public/>, accessed: July 15, 2019.

- **Article 22** – Provides for safe handling of hazardous wastes in the city. It authorizes the public health department to implement state hazardous waste regulations. It gives the public health department the authority to conduct inspections and document compliance.

CONSTRUCTION

Construction activities associated with subsequent development projects incentivized by the Hub Plan as well as the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street would involve the routine transport, use, and disposal of hazardous materials such as fuel, solvents, paints, oils, grease, and caulking. Construction activities associated with implementation of streetscape improvements would involve the routine transport, use, and disposal of hazardous materials such as fuel and paving materials. Such transport, use, and disposal must be compliant with applicable regulations, such as the RCRA, U.S. Department of Transportation (DOT) hazardous materials regulations, and California Occupational Safety and Health Administration (Cal/OSHA) regulations. The solvents, paints, oils, grease, and caulking would be transported, used, and disposed of during the construction phase; these materials are typically used in construction projects and would not represent the transport, use, or disposal of acutely hazardous materials. In addition, a SWPPP must be prepared and implemented during project construction for projects disturbing more than 5,000 square feet of soil, in accordance with SWRCB requirements. As discussed in Section E.15, Hydrology and Water Quality, and in the Regulatory Framework for Hazardous Materials Handling discussion, above, the SWPPP requires implementation of BMPs related to hazardous materials storage and soil stockpiles, inspections, maintenance, employee training, and the containment of releases to prevent runoff into existing stormwater collection systems or waterways. Because compliance with existing regulations is mandatory and involves containment activities to minimize the effects of an accidental release of hazardous materials, accidental hazardous materials releases during construction and operation would have a less-than-significant impact on human health and/or the environment. Hazards associated with the disturbance of existing soil and groundwater contamination are discussed further below.

Because compliance with existing regulations is mandatory, construction activities associated with subsequent development projects incentivized by the Hub Plan, the streetscape and street network improvements, and the two individual development projects, are not expected to create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials. The impacts would be *less than significant*.

OPERATION

None of the allowable land uses under the Hub Plan or the proposed uses under the two individual development projects would be major industrial activities. However, most of the new land uses under the Hub Plan and the two individual development projects would involve handling common types of hazardous materials related to cleaning and building maintenance,

such as cleansers, disinfectants, and chemical agents for sanitation. These commercial products are labeled to inform users of potential risks and appropriate handling procedures. These commercial products would be used in small amounts. Any release would be localized and cleaned up as it occurs. Moreover, these commercial products are typically consumed during use. Therefore, site operations at subsequent development projects under the Hub Plan and the two individual development projects would not result in the production of significant quantities of hazardous waste.

San Francisco Health Code article 21 requires any business that handles or stores hazardous materials or petroleum products above threshold quantities (i.e., 500 pounds, 55 gallons, or 200 cubic feet for compressed gasses) to comply with the requirements of the City's hazardous material handling requirements. In the event that hazardous materials use would exceed these thresholds for subsequent development projects under the Hub Plan and the two individual development projects, adherence to these requirements would be necessary. Accordingly, subject land uses would be required to obtain a certificate of registration from the public health department and implement a hazardous materials business plan that includes inventories, a program for reducing the use of hazardous materials and the generation of hazardous wastes, site layouts, a program and implementation plan for training new employees as well as annual training for all employees, and emergency response procedures and plans.

Facilities that store petroleum products in USTs would be required to obtain a permit for the UST in compliance with San Francisco Health Code article 21 and comply with the regulatory requirements for inspection, monitoring, and secondary containment of USTs. Facilities that store petroleum products in aboveground storage tanks beyond a specified size would be required to submit a storage statement to the SWRCB and prepare a Spill Prevention Control and Countermeasure Plan. In the unlikely event of a leak or tank rupture involving a UST or aboveground storage tank, the spill would most likely be contained within the secondary containment system for the tank. In addition, the public health department implements the Risk Management and Prevention Program specified in San Francisco Health Code article 21A and requires businesses that handle regulated substances to prepare a risk management plan. Similarly, any new businesses that handle hazardous waste must comply with the City's hazardous waste handling requirements, as specified in San Francisco Health Code article 22.

Compliance with the San Francisco Health Code, which incorporates state and federal requirements, would minimize potential exposure of site personnel and the public to any accidental releases of hazardous materials or waste and protect against potential environmental contamination. In addition, the transport of hazardous materials is well regulated by the California Highway Patrol and the California Department of Transportation.

Because compliance with existing regulations is mandatory, operational activities related to implementation of the Hub Plan and the two individual development projects would not create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials. This impact would be *less than significant*.

Mitigation: None required.

Impact HZ-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not create a significant hazard for the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. In addition, development under the Hub Plan, as well as the individual development projects, could occur on the site(s) identified on the list of hazardous materials sites compiled pursuant to Government Code section 65962.5 but compliance with regulations would ensure that impacts remain less than significant. (Less than Significant)

Future development in the Hub Plan area and at the sites for the two individual development projects could occur within a hazardous materials site that has been identified on a list compiled pursuant to Government Code section 65962.5 or at an otherwise contaminated site. As a result, construction activities could encounter hazardous materials in the soil and groundwater, and future site occupants, workers, and visitors could be exposed to hazardous materials. Excavated soil could require disposal as a hazardous waste, and groundwater pumped during dewatering could require treatment before being discharged. In the event that affected soil and groundwater are encountered, specific handling/disposal procedures could be required. Furthermore, occupants and workers at new development sites could be exposed to hazardous materials if such materials are left in place.

The discussion below presents relevant regulations and evaluates these potential impacts.

REGULATORY FRAMEWORK FOR ONSITE HAZARDOUS MATERIALS

The following regulations, ordinances, and programs apply to the handling of onsite hazardous materials:

- **Federal Toxic Substances Control Act/RCRA/Hazardous and Solid Waste Act** – The Federal Toxic Substances Control Act (1976) and the RCRA (1976) established an U.S. Environmental Protection Agency–administered program to regulate the generation, transport, treatment, storage, and disposal of hazardous waste. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle to grave” system of regulating hazardous wastes.
- **U.S. Department of Transportation** – DOT is responsible for regulating and ensuring the safe and secure movement of hazardous materials to industry and consumers by all modes of transportation. DOT develops regulations and standards for classifying, handling, and

packaging shipments of hazardous materials within the United States to minimize threats to life, property, or the environment due to hazardous materials–related incidents.

- **San Francisco Health Code Article 22A** – Article 22A, also known as the Maher Ordinance, amended August 2013, requires a project sponsor to conduct a site assessment to determine the potential for site contamination and the level of exposure risk associated with the project prior to issuance of a building permit. Based on that information, the project sponsor may be required to conduct additional investigations. If the results of the additional investigations reveal the presence of hazardous substances (i.e., in excess of state or federal standards), the project sponsor would be required to submit appropriate documentation to the public health department or other appropriate state or federal agencies and remediate any site contamination prior to the issuance of any building permit. For departments, boards, commissions, and agencies of the City and County of San Francisco that authorize construction or improvements on land under their jurisdiction where no building or grading permit is required, the ordinance requires protocols to be developed between the sponsor and the public health department that will achieve the environmental and public health and safety goals of article 22A.

The limits of the Maher area within the Hub Plan area are shown in **Figure E.18-1**, p. E.18-3.

The Maher Ordinance also requires testing of groundwater when contaminated groundwater is suspected.

- **Voluntary Remedial Action Program** – The public health department implements the Voluntary Remedial Action Program for cleanup on properties contaminated by hazardous materials in San Francisco, as authorized by California Health and Safety Code sections 101480 through 101490. This program addresses any site not covered under the Maher Ordinance that may require site investigation or remediation. These sites may include old dry cleaners, drug labs, etc., that may not be subject to a building permit but may have contamination. Under this program, the responsible party at a contaminated site may request the public health department to review phase I and II investigations and supervise the remedial action taken at a site, establish cleanup goals, and issue a letter or other document that certifies that the cleanup goals have been met. To obtain these oversight services, which streamline the site assessment and remediation process, the responsible party must enter into a remedial action agreement with the public health department. Depending on the contaminants present or the complexity of site issues, some sites may be more appropriately handled by a state agency, such as the DTSC or RWQCB.
- **Local Oversight Program** – Under the Local Oversight Program, the public health department provides oversight for sites that have experienced a release from a UST, pursuant to California Code of Regulations Title 23, chapter 16. Under this program, the SWRCB provides regulatory guidance and also reviews, comments on, and approves site

assessment reports, feasibility studies, and work plans; reviews monitoring data to evaluate the effectiveness of the remediation strategy; and, upon completion of remediation, issues a letter or other document that certifies that the cleanup goals have been met.

- **UST and Facility Closure** –San Francisco Health Code article 21 addresses issues related to the closure of USTs and hazardous materials handling facilities. To close a facility (including USTs), a closure plan must be prepared that identifies how the need for future maintenance of the facility will be eliminated, how the threat to the environmental and public health and safety will be eliminated, and how all hazardous materials in the facility will be removed and appropriately disposed of. The plan must be submitted to the City for approval prior to closure. This article also requires soil from the UST excavation, and possibly the groundwater, to be sampled. Upon completion of closure, a final report documenting UST removal activities and any residual contamination left in place must be submitted to the City. Upon approval of this report, the City issues a Certificate of Completion. If a release is indicated, the site owner is required to assess the extent of any contamination and conduct site remediation, as needed, in compliance with the public health department Local Oversight Program requirements. The public health department can approve abandonment of the UST in place if removal is not feasible.

THE HUB PLAN

As mentioned in the Setting section, a review of the SWRCB's GeoTracker website and the DTSC's EnviroStor website identified a total of 25 LUST cleanup sites, four UST sites, one School Investigation site, one Military Evaluation site, two Military Cleanup sites, one Military UST site, one Tiered Permit site, one State Response site, and one Cal-Mortgage site within the Hub Plan area (as shown in **Figure E.18-1**, p. E.18-3). Some facilities can be found in multiple databases; therefore, the actual number of facilities can be less than the total number of sites denoted. Because of the historic use of hazardous materials in the area, it is possible that activities associated with future development in the Hub Plan area could encounter existing or residual contamination during grading, excavation, dewatering, or the installation of the placement footer or other support structures for new buildings.

30 VAN NESS AVENUE

The 30 Van Ness Avenue project site is in the Haznet, Resource Conservation and Recovery Information System (RCRIS) Conditionally Exempt Small-Quantity Generator (CESQG), Historical Auto Stations, and Historical Cleaners databases, according to the database search in the phase I ESA prepared for the 30 Van Ness Avenue Project. The Haznet database includes information on sites that submit hazardous wastes manifests regarding offsite transport and disposal of hazardous waste. The RCRIS CESQG database includes information on sites that generate, transport, store, treat, and/or dispose of less than 220 pounds of hazardous waste or less than 2 pounds of acutely hazardous waste per month. The Historical Auto Stations

database identifies historic gas station locations, while the Historical Cleaners database identifies historic dry cleaner locations. However, the database search indicated that no current or historical conditions appear to have significantly affected the soil or groundwater onsite. In addition, the database search did not identify surrounding or adjoining sites with the potential to have significantly affected the soil or groundwater beneath the site. A supplemental search conducted in 2018 through GeoTracker and EnviroStor did not find the 30 Van Ness Avenue site in any other environmental databases.

At the time of preparation of the site-specific phase I ESA²⁷⁹ for the 30 Van Ness Avenue project site, no significant quantities of hazardous materials were being used at the property, and no hazardous wastes were being generated. However, given that the site is listed in the aforementioned environmental databases, and considering historic land uses at the project site (i.e., automotive repair, paint and varnish facility, print shop), hazardous materials and wastes were most likely used and generated on the site. As such, there is potential for small (historic) releases within the site's footprint. USTs were not identified onsite, neither currently nor historically; however, given the historical occupancy by automotive repair facilities, buried sub-grade structures could be present (such as lifts, sumps, and fuel and fuel oil USTs). One REC was identified in relation to the property.

As shown in **Figure E.18-1**, p. E.18-3, the northwest corner of the site is within a Maher area. Therefore, given its location within a Maher area (and the site's prior industrial use involving paint, varnish, and printing), development activities conducted onsite would be subject to article 22A.

98 FRANKLIN STREET

According to the database search in the phase I ESA²⁸⁰ prepared for the 98 Franklin Street project site, the site is listed in the Historical Auto Stations, Haznet, and UST regulatory databases. The site was identified in the aforementioned databases because of the gasoline station that operated on the site from approximately 1949 until 1965. Four 2,000-gallon USTs were removed from the site in October 1998. Soil samples collected near UST piping, dispenser islands, and stockpiled soil from removal of the USTs did not detect petroleum hydrocarbons at or above reporting limits. According to the tank removal report prepared for the site, two additional USTs were reported onsite. At the time of UST removal, numerous test pits were dug throughout the site, but no additional USTs were located. Case closure was granted by the public health department in January 1999, with no further investigation

²⁷⁹ AllWest Environmental, Inc., *Phase I Environmental Site Assessment: The Herbst Building, 26–90 Van Ness Avenue and 1484–1496 Market Street, San Francisco, California*, March 28, 2015.

²⁸⁰ Treadwell & Rollo, *Phase I Environmental Site Assessment: 98 Franklin Street, 59 Oak Street, and 1576 Market Street, San Francisco, California*, August 16, 2012.

required. According to the phase I ESA, offsite listings were not expected to pose a significant environmental risk at the 98 Franklin Street site.

According to the phase I ESA, the site is in an area of artificial fill that is known to contain various contaminants from unknown sources (historic fill material in the area could be associated with the 1906 earthquake and fire). The fill material is composed of loose to medium-dense silty sand with varying amounts of brick, wood, metal, and glass fragments. Previous investigations of properties in the area identified elevated levels of metals and petroleum hydrocarbons. The phase I ESA suggested onsite soils could contain elevated concentrations of heavy metals, diesel, motor oil, and polycyclic aromatic hydrocarbons.

Subsequent to the phase I ESA, Environmental Site Characterization (ESC) was conducted to collect samples of the fill material and underlying sand as well as groundwater. The objective of the ESC was to assess petroleum hydrocarbon and metal contamination in soil and groundwater. Because hazardous materials were detected onsite, the ESC recommended preparation of a soil management plan (SMP) and a health and safety (H&S) plan prior to construction occurring onsite. The SMP would provide measures to address safety risks caused by the presence of hazardous materials in the soil. The SMP would also contain contingency plans to be implemented during soil excavation if unanticipated hazardous materials are encountered. The H&S plan would outline proper soil handling procedures and requirements to minimize worker and public exposure to hazardous materials during construction. The ESC determined that groundwater discharge (if dewatering becomes necessary) would be subject to permit requirements set by the San Francisco Public Utilities Commission. Furthermore, development activities to be conducted onsite would be subject to article 22A. Under article 22A, the project sponsor would be required to submit the aforementioned SMP and H&S plan to the public health department and remediate site contamination prior to the issuance of any building permits.

IMPACTS

DEVELOPMENT ON FORMER HAZARDOUS MATERIALS HANDLING FACILITIES

Potential impacts related to residual contamination from former hazardous material handling facilities (including USTs) would be minimized through compliance with San Francisco Health Code article 21, which specifies procedures that must be followed when a hazardous materials handling facility is closed. Compliance would include preparation and implementation of a closure plan, along with implementation of any required sampling. Where a release is discovered, investigation and cleanup could be required under the oversight of the Local Oversight Program. In this case, a corrective action plan may be required. The public health department would determine the adequacy of the plan and may request state or federal agency review. The public health department findings would be published for public review. Alternatively, a UST could be abandoned in place if removal was not feasible. For subsequent development projects incentivized by the Hub Plan and the two individual development

projects, compliance with regulations would ensure that impacts related to development on the sites of former hazardous materials handling facilities would be *less than significant*.

CONSTRUCTION IN AFFECTED AREAS

Because the Hub Plan covers a large geographic area, there are multiple sites with historic and/or current land uses involving hazardous materials. In addition, some sites are listed in environmental databases that identify releases within the area (i.e., LUST cleanup sites, Military Cleanup sites, State Response sites). Therefore, the potential exists to encounter soil and groundwater contamination during construction activities. Furthermore, each of the two individual project sites is either partially or entirely within a Maher area.

Without implementation of proper protections, construction personnel or the surrounding community could be exposed to hazardous materials during construction activities, including excavation, grading, and dewatering, or during site investigation and remediation. Without proper engineering controls, occupants could also be exposed to hazardous materials if such materials are left in place. Select hazardous materials produce soil vapor that could accumulate in structures, causing nuisance vapors, adverse health effects, or flammable or explosive conditions. However, implementation of the requirements of the Maher Ordinance, along with the Voluntary Remedial Action Program and Local Oversight Program, described in the Regulatory Framework for Onsite Hazardous Materials section, above, would ensure that impacts associated with construction within contaminated soil and groundwater would be *less than significant*.

DISPOSAL OF AFFECTED MEDIA

Where remediation or tank removal requires offsite transport of contaminated soil or groundwater, these materials could be classified as a restricted or hazardous waste under state or federal regulations, depending on the specific characteristics of the materials. However, the generator of the hazardous wastes would be required to follow state and federal regulations (discussed under the Regulatory Framework for Onsite Hazardous Materials section above) regarding manifesting the wastes, using licensed waste haulers, and disposing the materials at a permitted disposal or recycling facility. With implementation of these regulatory requirements, the impacts of subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, related to the disposal of hazardous wastes would be *less than significant*.

According to the phase I ESAs prepared for 30 Van Ness Avenue and 98 Franklin Street, groundwater in the area is expected to be anywhere from 7 to 24 feet bgs in the Hub Plan area. Subsequent development projects incentivized by the Hub Plan would include construction of foundations and could include belowground vehicular parking garages (extending below groundwater depth). Therefore, dewatering might be necessary. If groundwater produced during construction dewatering requires discharge to the sewer system, the discharge would be conducted in compliance with article 4.1 of the San Francisco Public Works Code, as

supplemented by Order No. 158170, which specifies conditions and criteria for discharges of groundwater. This article also prohibits discharges of hazardous wastes into the combined sewer system. The discharged water would have to be sampled during dewatering to demonstrate that discharge limitations in the ordinance are met. If the groundwater does not meet discharge requirements, onsite pretreatment may be required before discharge to the sewer system. If standards cannot be met with onsite treatment, offsite disposal by a certified waste hauler would be required. Long-term dewatering could also be required to alleviate hydrostatic pressure on belowground features such as vehicular parking garages. With implementation of the regulatory requirements described above, the impacts of the Hub Plan and the two individual development projects related to the discharge of contaminated groundwater would be *less than significant*.

Mitigation: None required.

Impact HZ-3: The Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not expose workers and the public to hazardous building materials, including asbestos-containing materials, lead-based paint, polychlorinated biphenyls, bis(2-ethylhexyl) phthalate, and mercury, during demolition and building removal or result in a release of these materials into the environment during construction. (Less than Significant)

During subsequent development projects incentivized by the Hub Plan, including the individual development project at 30 Van Ness Avenue, facilities that use hazardous materials could be demolished or renovated. As a result, people in the area and the surrounding environment could be exposed to hazardous materials. The Hub Plan area is a large geographic area with buildings that were constructed at different times. These buildings may contain hazardous materials, such as ACM, LBP, and PCBs²⁸¹ in electrical equipment. The buildings could also have fluorescent light ballasts with PCBs or bis(2-ethylhexyl) phthalate²⁸² (DEHP) and fluorescent light tubes with mercury vapors. All of these materials were commonly employed until the second half of the 20th century. If a building is demolished or renovated as part of Hub Plan development, workers and the public could be exposed to hazardous building materials if they are not abated prior to demolition. However, there is a well-established regulatory

²⁸¹ PCBs are man-made organic chemicals, known as chlorinated hydrocarbons. They have been shown to cause cancer in animals as well as several serious non-cancer health effects in animals, including effects on the immune system, reproductive system, nervous system, endocrine system, and other health effects (U.S. Environmental Protection Agency [EPA] 2017).

²⁸² DEHP is a manufactured chemical that is commonly added to plastics for flexibility. The Department of Health and Human Services has determined that DEHP may reasonably be anticipated to be a human carcinogen. EPA has determined that DEHP is a probable human carcinogen (Agency for Toxic Substances and Disease Registry 2002).

framework for the abatement of ACMs, LBP, PCBs, and DEHP, as discussed under the Regulatory Framework for Hazardous Building Materials section, below.

The 98 Franklin Street project site is currently occupied by a vehicular parking lot and does not contain asbestos, lead, PCBs, DEHP, or mercury. Therefore, impacts would be *less than significant*.

REGULATORY FRAMEWORK FOR HAZARDOUS BUILDING MATERIALS

ASBESTOS-CONTAINING MATERIALS

Section 19827.5 of the California Health and Safety Code requires local agencies not to issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with the authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement. The BAAQMD must be notified 10 days in advance of any proposed demolition or abatement work. Notification includes the following:

- The names and addresses of operators and persons responsible
- A description and the location of the structure to be demolished/altered, including size, age, and prior use
- The approximate amount of friable asbestos that would be removed or disturbed
- The scheduled starting and completion dates of demolition or abatement
- The nature of the planned work and methods to be employed
- The procedures to be employed to meet BAAQMD requirements
- The name and location of the waste disposal site to be used

The BAAQMD randomly inspects asbestos removal operations. In addition, the BAAQMD will inspect any removal operation when a complaint has been received. The local office of Cal/OSHA must be notified when asbestos abatement is carried out. Asbestos abatement contractors must follow state regulations contained in Title 8 of the California Code of Regulations, sections 1529 and 341.6 through 341.17, where there is asbestos-related work involving 100 square feet or more of ACM. Asbestos removal contractors must be certified as such by the Contractors Licensing Board of the State of California. The owner of the property where abatement is to occur must have a Hazardous Waste Generator Number assigned by and registered with the Office of the California Department of Health Services in Sacramento. The contractor and hauler of the material are required to file a Hazardous Waste Manifest that details the hauling of the material from the site and the disposal of it. Pursuant to California

law, the building department would not issue the required permit until the applicant has complied with the notice and abatement requirements described above.

LEAD-BASED PAINT

Work that could result in the disturbance of lead paint must comply with section 3425 of the building code, Work Practices for Lead-Based Paint on Pre-1979 Buildings and Steel Structures. Where there is any work that may disturb or remove lead paint on the exterior of any building built prior to 1979, section 3425 requires specific notification and work standards. It also identifies prohibited work methods and penalties.

Section 3425 applies to the exterior of all buildings or steel structures constructed prior to 1979, which are assumed to have LBP on their surfaces, unless demonstrated otherwise through laboratory analysis, as well as the interior of residential buildings, hotels, and childcare centers. The ordinance contains performance standards, including the establishment of containment barriers that are at least as effective at protecting human health and the environment as those in the U.S. Department of Housing and Urban Development Guidelines, the most recent guidelines for evaluation and control of LBP hazards, and identifies prohibited practices that may not be used during disturbances or removal of LBP. Any person performing work subject to the ordinance shall, to the maximum extent possible, protect the ground from contamination during exterior work, protect floors and other horizontal surfaces from work debris during interior work, and make all reasonable efforts to prevent migration of lead paint contaminants beyond containment barriers during the course of the work. Cleanup standards require the removal of visible work debris, including the use of a high-efficiency particulate air filter (HEPA filter) vacuum following interior work. The ordinance also includes notification requirements as well as requirements regarding signs, provisions regarding inspection and sampling for building department compliance, and penalties for non-compliance with the ordinance.

The demolition or renovation of structures with materials that contain lead in their interiors could expose workers and the public to lead. However, these activities would be subject to the Cal/OSHA Lead in Construction Standard (Title 8 of the California Code of Regulations, section 1532.1). This standard requires development and implementation of a lead compliance plan when materials that contain lead could be disturbed during construction. The plan must describe activities that could emit lead, the methods that would be used to comply with the standard, safe work practices, and a plan to protect workers from exposure to lead during construction activities. Cal/OSHA would require 24-hour notification if more than 100 square feet of materials that contain lead would be disturbed.

POLYCHLORINATED BIPHENYL OR DIETHYLHEXYL PHTHALATE

Fluorescent light ballasts can contain PCBs or DEHP. PCBs have been prohibited in most uses since 1978, although some electrical transformers still in use today use oils that contain PCBs. EPA has classified DEHP as a probable human carcinogen. Switches, thermostats, and fluorescent light tubes can contain mercury, which can harm the brain, kidneys, lungs, and immune systems of people. The following regulations address abatement, removal, and disposal of these hazardous building materials:

- Federal Toxic Substances Control Act of 1976 (U.S. Code, title 15, chapter 53, and 40 Code of Federal Regulations 761) provides EPA with the authority to require reporting, record-keeping, and testing and enact restrictions related to chemical substances. The act places special attention on PCBs, asbestos, lead, and mercury. As part of the TSCA, EPA identified DEHP as a chemical that requires an action plan; DEHP is listed as a hazardous waste under federal regulations (40 Code of Federal Regulations 261.33).
- California Universal Waste Rule (22 California Code of Regulations section 66261.9) identifies fluorescent tubes and bulbs and mercury-containing equipment, including thermostats and switches, as hazardous waste and regulates their disposal (22 California Code of Regulations section 66261.50).

IMPACTS

As discussed, ACM, LBP, PCBs, and DEHP are likely to be present at 30 Van Ness Avenue and throughout the Hub Plan area. Therefore, demolition and renovation activities at development sites would be subject to the regulations and requirements discussed in the Regulatory Framework for Hazardous Building Materials section, above. Therefore, impacts related to asbestos, lead, PCBs, and DEHP under subsequent development projects incentivized by the Hub Plan as well as the 30 Van Ness Avenue Project would be *less than significant*.

Mitigation: None required.

Impact HZ-4: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. (Less than Significant)

The handling or emission of hazardous or acutely hazardous materials near schools must consider potential health effects on children, who are considered sensitive receptors. The existing private schools within the Hub Plan area include:

- The California Institute of Integral Studies, located at 1453 Mission Street
- The Make School, located at 1547 Mission Street
- LePort Montessori San Francisco Mid-Market, located at 50 Fell Street

There are no existing public schools within the Hub Plan area. The existing public and private schools within a 0.25-mile radius of the Hub Plan area include:

- Marshall Elementary School, located at 1575 15th Street
- Bessie Carmichael Elementary School, located at 375 Seventh Street
- Presidio Knolls School, located at 250 10th Street
- Chinese American International School, located at 150 Oak Street
- French American International School, located at 150 Oak Street
- Sterne School, located at 245 Valencia Street
- Millennium School, located at 380 Fulton Street
- Minerva Schools at KGI, located at 1145 Market Street
- San Francisco Friends School, located at 250 Valencia Street

The primary exposure pathway of concern for children at nearby schools is through the inhalation of air contaminants, such as particulate matter. Sources of hazardous emissions during project construction and operation include diesel particulate matter (DPM) from vehicle exhaust and emergency generators. However, none of the new land uses that could be developed as part of Hub Plan and the two individual development projects would be expected to involve emissions of toxic air contaminants, as identified by the air board and the BAAQMD, with the exception of DPM from operation of diesel-powered backup generators in high-rise buildings. (The effects of DPM emissions, including construction emissions, are addressed in the EIR's analysis of air quality.) With respect to DPM, BAAQMD's Regulation 2, Rule 5, New Source Review, would require a health risk analysis for any diesel generators near sensitive receptors such as schools. For any individual project with an excess cancer risk greater than 1 in 1 million, or a non-cancer hazard index greater than 0.2, the rule would require the project sponsors to implement best available control technology to reduce DPM emissions. The rule would also prohibit granting permits for generators with DPM emissions that would exceed the threshold of 10 excess cancer cases in 1 million or a non-cancer index of 1.0.

As discussed under Impact HZ-1, above, hazardous materials used during construction and operation would be managed in accordance with applicable laws and regulations, and potential impacts on nearby receptors would be less than significant. This determination would also apply to future school children.

Through compliance with these regulatory requirements, as enforced through the BAAQMD permitting process, impacts related to hazardous or acutely hazardous materials encountered during construction and operation of subsequent development projects under the Hub Plan and the two individual development projects, would be *less than significant* at nearby schools.

Mitigation: None required.

Impact HZ-5: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

New occupants of proposed buildings constructed under the Hub Plan and the 30 Van Ness Avenue and 98 Franklin Street developments could increase normal day-to-day congestion in the area, potentially affecting emergency evacuation procedures in downtown. However, section 12.202(e)(1) of the San Francisco Fire Code requires all owners of high-rise buildings (i.e., more than 75 feet) to “establish or cause to be established procedures to be followed in case of fire or other emergencies. All such procedures shall be reviewed and approved by the chief of division.” In addition, project construction would conform to the provisions of the building code and fire code, which require additional life-safety protections in high-rise buildings. Moreover, the City has a published Emergency Response Plan, prepared by the San Francisco Department of Emergency Management as part of the City’s Emergency Management Program, which also includes plans for hazard mitigation and disaster preparedness and recovery.

The Emergency Response Plan identifies hazards to which San Francisco is particularly susceptible (e.g., earthquakes, hurricanes, tsunamis, floods, winter storms, and acts of terrorism, including the use of chemical, biological, radiological, nuclear, and explosive weapons). The Emergency Response Plan complies with several relevant state and federal directives for emergency planning, including the California Standardized Emergency Management System and the Incident Command System. The Emergency Response Plan includes sections regarding operations, including management and procedures; staffing, operations, and logistics for the City’s emergency operations center; and mutual aid, which involves other agencies. The Emergency Response Plan assigns responsibilities for disaster planning; operations, including fire and rescue, law enforcement, human services, infrastructure, transportation, communications, and community support; and logistics, as well as finance and administration, to City agencies and departments. The Emergency Response Plan also identifies volunteer agencies, such as the American Red Cross, that are integral to disaster response efforts. The Emergency Response Plan contains 16 “annexes” (similar to appendices), consistent with a federally established framework, that cover topics such as firefighting, public works and engineering, mass casualty care, and earthquakes, among numerous others. The Earthquake Annex, in particular, sets forth planning assumptions for a series of earthquakes of varying magnitudes on different faults and procedures for the assessment of damage and injuries.

Development under the proposed Hub Plan and the two individual development projects would increase the population in the city that would be subject to a potential disaster, including a major earthquake and other hazards identified in the Emergency Response Plan. In particular, the Hub Plan area, as well as the two individual development project locations, would be subject to ground shaking from potentially large earthquakes occurring along the San Andreas

or Hayward faults or other faults in the region. However, subsequent development projects incentivized under the proposed Hub Plan as well as the two individual development projects would be subject to current (and more stringent) building and structural standards than most existing buildings. Therefore, new buildings would be constructed with a relatively safer design. Furthermore, development as part of the proposed Hub Plan, including 30 Van Ness Avenue, 98 Franklin Street, would not obstruct implementation of the City's Emergency Response Plan or interfere with emergency evacuation planning because none of the project components have any characteristics (e.g., permanent road closures) that would physically impair or otherwise interfere with emergency access, response, or evacuation. Adherence to the San Francisco Fire Code and building code, along with implementation of the Emergency Response Plan, would reduce potential impacts related to interference with emergency response or evacuation plans to *less than significant*.

Mitigation: None required.

Impact C-HZ-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, and reasonably foreseeable future development, would not make a considerable contribution to any cumulative impact related to hazards and hazardous materials. (Less than Significant)

Potential hazardous materials impacts related to development under the Hub Plan and development at 30 Van Ness Avenue and 98 Franklin Street, could result from handling hazardous materials, conducting construction activities within potentially contaminated soil or groundwater, or demolishing structures that contain hazardous materials. However, potential impacts would be restricted to the Hub Plan area, the 30 Van Ness Avenue and 98 Franklin Street sites and their immediate vicinity. Therefore, the geographic scope for cumulative impacts related to hazards includes the Hub Plan area, 30 Van Ness Avenue and 98 Franklin Street and the immediate vicinity.

Implementation of subsequent development projects incentivized by the Hub Plan as well as the individual development projects would not result in any significant impacts with respect to hazards or hazardous materials that could not be reduced through compliance with regulations.

Development of related projects in affected areas would require compliance with local, state, and federal environmental regulations, thereby improving overall environmental quality. Impacts associated with other development, such as those related to hazardous building materials in structures or soil contamination, would be assessed and, as necessary, remediated on a project-by-project basis. Through compliance with regulations, the Hub Plan, along with the individual projects, would not contribute considerably to any such cumulative impacts.

Mitigation: None required.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
19. MINERAL RESOURCES. Would the project:					
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site, as delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Hub Plan area, including the individual project sites at 30 Van Ness Avenue and 98 Franklin Street and the Hub HSD, is designated Mineral Resource Zone 4 by the California Geological Survey under the Surface Mining and Reclamation Act of 1975 (Public Resources Code section 2710, et seq.). Areas designated Mineral Resource Zone 4 have no known mineral occurrences or there is too little information to indicate either the presence or absence of significant mineral resources. In addition, according to the Environmental Protection Element of the general plan, mineral resources are not found in San Francisco to any appreciable extent.²⁸³ Furthermore, the City has not delineated any portion of the Hub Plan area as a locally important mineral resource recovery site on any land use plan. Therefore, topics 19a and 19b are not applicable to any of the project’s components and not addressed further in the EIR.

²⁸³ City and County of San Francisco, *General Plan: Environmental Protection Element*, 2004, http://generalplan.sfplanning.org/l16_Environmental_Protection.htm, accessed: July 5, 2019.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
20. ENERGY. Would the project:					
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SETTING

Pacific Gas & Electric provides electric service and natural gas to the Hub Plan area, including the individual project sites at 30 Van Ness Avenue and 98 Franklin Street and the Hub HSD. The San Francisco Public Utilities Commission currently provides electric service to the Hub Plan area, using Pacific Gas & Electric’s overhead lines. With a relatively mild Mediterranean climate and strict energy-efficiency and conservation requirements, California has lower energy consumption rates than other parts of the country. According to the Department of Energy, California’s per capita energy consumption ranked 49th in the nation as of 2015.²⁸⁴ California has among the lowest annual electrical consumption rates per person of any state, and its residential uses consume 31 percent less energy compared with the national average.²⁸⁵

Pacific Gas & Electric provides natural gas within an area of 70,000 square miles in northern and central California, including San Francisco and the Hub Plan area as well as the individual project sites at 30 Van Ness Avenue and 98 Franklin Street and the Hub HSD. Pacific Gas & Electric’s service area extends north to south from Eureka to Bakersfield and east to west from the Sierra Nevada to the Pacific Ocean. Pacific Gas & Electric purchases gas from a variety of sources, including other utility companies.

San Francisco is located in a coastal climate zone (Climate Zone 3 in the Title 24 climate zone designation mapping). In 2016, Pacific Gas & Electric delivered approximately 227 million therms of natural gas to San Francisco, with about 43 percent, or approximately 97 million therms of natural gas, sold to nonresidential customers.²⁸⁶

²⁸⁴ U.S. Department of Energy and U.S. Energy Information Administration, State Profile and Energy Estimates – California, 2017, <http://www.eia.gov/state/?sid=CA>, accessed: March 9, 2018.

²⁸⁵ U.S. Energy Information Administration, Household Energy Use in California, 2009, http://www.eia.gov/consumption/residential/reports/2009/state_briefs/pdf/CA.pdf, accessed: March 9, 2018.

²⁸⁶ California Energy Commission, Electricity Consumption by County, 2016, <http://www.ecdms.energy.ca.gov/gasbycounty.aspx>, accessed: July 11, 2019.

The San Francisco Public Utilities Commission is San Francisco's municipal power utility. The San Francisco Public Utilities Commission also provides electrical services to select local residential and business communities. The Hetch Hetchy Power System, which is owned and operated by the San Francisco Public Utilities Commission, supplies clean energy to all of San Francisco's municipal facilities, services, and customers. The Hetch Hetchy Power System is composed of three hydroelectric powerhouses, with a combined total of nearly 400 megawatts.²⁸⁷ This electricity is transmitted to San Francisco along City-owned transmission lines. Within San Francisco, the San Francisco Public Utilities Commission also generates more than 10 megawatts of renewable energy from 19 solar arrays and two biogas cogeneration facilities.

APPROACH TO ANALYSIS

Neither the Hub Plan nor Hub HSD would immediately result in new development, with the exception of the streetscape and street network improvements. The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential SUD to encompass the southern portion of the Hub Plan area. Various streetscape and street network improvements are also proposed as part of the Hub Plan. The Hub HSD would allow for ministerial approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. Effects on energy resources could also result as subsequent development projects allowed under the Hub Plan or Hub HSD replace existing residences and businesses or increase space for housing in the Hub Plan area. In addition, the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would result in new development in the Hub Plan area. Both projects would introduce new housing and population to the area, which could affect energy resources; therefore, they are analyzed on a project-specific level.

Implementation of the Hub HSD is a procedural change that may reduce the time required for approval of projects that satisfy all of the requirements of the HSD ordinance. Designation of an HSD, through adoption of an ordinance by the San Francisco Board of Supervisors, would allow the city to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD. Qualifying projects approved under the HSD would still be required to implement applicable mitigation measures identified in this EIR and comply with adopted design review standards and all existing city laws and regulations but would not require additional CEQA analysis. Because the Hub HSD would be a procedural

²⁸⁷ San Francisco Public Utilities Commission, *About the Power Enterprise*, n.d., <http://sfwater.org/index.aspx?page=391>, accessed: March 9, 2018.

change that would be shown as an overlay on zoning maps, no impacts would result from implementation of the HSD beyond those identified for the Hub Plan, and this project component is not discussed further.

This analysis considers to what extent subsequent development projects under the Hub Plan, as well as development under the two individual development projects, would generate a demand for energy and water and whether such demand would be wasteful. The existing state and local regulatory environment was evaluated to determine requirements for new structures that would be built under the Hub Plan. These requirements (e.g., LEED, GreenPoint) are well established in the industry as standards for efficient building practices. Analysis then determined whether specific projects proposed under the Hub Plan included compliance with these requirements. Analysis then further evaluated whether proposed network changes would involve an increase in alternative transportation modes as a means of avoiding wasteful use of energy.

IMPACTS AND MITIGATION MEASURES

Impact EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation; or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Less than Significant)

Throughout the past 15 years, several federal, state, and citywide policies and measures have been enacted to promote energy efficiency and reduce current demands on non-renewable resources. The federal Energy Policy Act of 2005 seeks to reduce reliance on non-renewable energy resources and provide incentives to reduce current demand on these resources. For example, pursuant to the act, consumers and businesses can attain federal tax credits for purchasing fuel-efficient appliances and products, buying hybrid vehicles, building energy-efficient buildings, and improving the energy efficiency of commercial buildings. In addition, tax credits are available for the installation of qualified fuel cells, stationary micro-turbine power plants, and solar power equipment.

Senate Bill 1389, passed in 2002, requires the California Energy Commission to develop an integrated energy plan biannually for electricity, natural gas, and transportation fuels for the California Energy Report. The 2017 California Energy Report²⁸⁸ calls for the state to take a leadership role in addressing climate change and GHG emissions. Much of the scope of the document supports this primary goal: to double energy efficiency savings by 2030, achieve

²⁸⁸ California Energy Commission, *2017 Integrated Energy Policy Report*, 2018, http://www.energy.ca.gov/2017_energypolicy/, accessed: February 12, 2018.

the 50 percent renewables portfolio standard by 2030, advance electrification as a transportation alternative, address low-income barriers to clean energy, increase resiliency in the electricity sector, and explore renewable gas as a tool to reduce methane emissions.

California's Building Energy Efficiency Standards, set forth in Title 24, part 6, of the California Code of Regulations, govern all aspects of building construction. Included in part 6 of the code are standards mandating energy efficiency measures in new construction. Since its establishment in 1977, the building efficiency standards (along with standards for energy efficiency in appliances) have contributed to a reduction in electricity and natural gas usage and costs in California. The standards are updated every 3 years to incorporate new energy efficiency technologies. The latest update to the Title 24 standards became effective on January 2, 2017, and reflect the California Building Standards Commission–approved 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings.²⁸⁹ The standards regulate energy consumed in buildings for heating, cooling, ventilation, water heating, and lighting. Title 24 is implemented through the local planning and permit process. Subsequent development projects incentivized by the Hub Plan, the two individual development projects, and projects under the HSD would adhere to the above regulations and standards to significantly reduce energy and fuel use during construction as well as operation.

San Francisco adopted a Green Building Code in 2008; in 2010, it adopted California's Green Building Standards Code (CALGreen), with modifications. The current code is the 2016 San Francisco Green Building Code, which combines all mandatory elements of the 2016 CALGreen regulations as well as stricter local requirements.²⁹⁰ Applicants who apply for a building permit from January 1, 2017, through December 31, 2019, must conform to the 2016 San Francisco Green Building Code. Applicants who apply for a permit after December 31, 2019, would be subject to the next iteration of the building code. Under San Francisco Environment Code chapter 7, municipal projects of 10,000 square feet or larger are required to obtain LEED Gold certification. For those projects, the permit applicant must provide submittal documentation showing that the building will meet LEED Gold certification requirements. The 2016 San Francisco Green Building Code also requires building permit submittals to show that they meet the compliance margin required by the applicable rating system and the California Building Energy Efficiency Standards in effect at the time of permit submittal. California Building Energy Efficiency Standards documentation must be prepared using software from the California Energy Commission's List of Approved Computer Programs for the Building Energy Efficiency Standards. Buildings that meet a LEED for Building Design and

²⁸⁹ California Energy Commission, *2016 Building Energy Efficiency Standards*, 2018, <http://www.energy.ca.gov/title24/2016standards/>, accessed: February 12, 2018.

²⁹⁰ City and County of San Francisco, *Green Building: Submittal Instructions, per AB-093* (updated January 1, 2017), 2017, <http://sfdbi.org/sites/default/files/IS%20GB-01.pdf>, accessed: February 13, 2018.

Construction standard or LEED Core and Shell standard must prepare and submit all standard documentation required by the California Energy Commission to demonstrate compliance with the California Building Energy Efficiency Standards (Title 24, part 6) in effect on the date of permit application. LEED certification requires larger commercial buildings to generate renewable energy onsite; improve energy efficiency by 10 percent beyond Title 24, part 6; or purchase renewable energy credits.

For the proposed project-specific development, goals for development of a sustainable design will contribute to the efficient consumption of fuel, water, and energy. The 30 Van Ness Avenue Project would comply with GreenPoint or LEED Gold standards and include electric-vehicle charging spaces in the garage. In addition, the heating, ventilation, and air-conditioning systems would be designed and optimized to improve energy efficiency, thermal comfort, and natural lighting. The project sponsor for the 98 Franklin Street Project would either seek LEED certification or meet applicable GreenPoint requirements. In addition, the sponsor would incorporate several sustainability features, including stormwater and rainwater collection features and a wastewater treatment system, which would lead to further reductions in water consumption.

Approval of the Hub Plan would not immediately result in wasteful consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency because the planning decisions would have no immediate effect on the environment. The approvals could, however, cause an effect related to the consumption of energy resources by enabling future development, consistent with the approvals, that would result in demands on these resources. However, any such future project would be infill development near existing modes of public transportation, existing water supplies, and existing water supply and energy infrastructure. Furthermore, future development projects would be subject to the most current energy and water efficiency standards in effect at the time the projects are proposed. Therefore, implementation of the Hub Plan would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, large amounts of energy resources would not be used during construction or operation, and conflicts with or obstruction of a state or local plan for renewable energy or energy efficiency would not occur.

The streetscape and street network improvements are expressly intended to increase the attractiveness and usability of alternative modes of travel to automobiles, such as walking, bicycling, and transit. Therefore, the streetscape and street network improvements, over time, would most likely result in an incremental decrease in fuel use and, thus, energy use in the area affected by these improvements. Therefore, the streetscape and street network improvements would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Approval of project-specific development associated with the Hub Plan, streetscape and street network improvements, and the two individual development projects, would not result in wasteful, inefficient, or unnecessary consumption of energy resources, large amounts of fuel, water, or energy would not be used during construction or operation, because such development would be designed to comply with current energy and efficiency standards, and no conflicts with or obstruction of a state or local plan for renewable energy or energy efficiency would occur. This impact would be *less than significant*.

Mitigation: None required.

Impact C-EN-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in a considerable contribution to cumulative impacts related to the wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (Less than Significant)

The geographic context for the analysis of cumulative impacts associated with energy is the city. Development of past, present, and future projects will use energy resources. Projects developed in the city, including projects proposed within the Hub Plan area, would be subject to the most current energy and water efficiency standards in effect at the time the projects are proposed. The current standards are the 2016 Building Energy Efficiency Standards for Residential and Nonresidential Buildings and 2016 San Francisco Green Building Code. Conformance with these requirements would result in less-than-significant impacts related to the use of energy resources and adherence to state or local plans for renewable energy or energy efficiency on a project level. Because the city is almost entirely built out, past, present, and future projects would be infill projects, making best use of limited space; these projects would not constitute a cumulative impact. Therefore, the Hub Plan and the two individual development projects would not make a cumulatively considerable contribution to a cumulative impact. The cumulative impact would be *less than significant*.

Mitigation: None required.

<u>Topics:</u>	<i>Potentially Significant Impact</i>	<i>Less than Significant with Mitigation Incorporated</i>	<i>Less-than-Significant Impact</i>	<i>No Impact</i>	<i>Not Applicable</i>
<p>21. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts on forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forestland, including the Forest and Range Assessment Project and the Forest Legacy Assessment project, and the forest carbon measurement methodology provided in the Forest Protocols adopted by the California Air Resources Board.</p>					
<p>Would the project:</p>					
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forestland or conversion of forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to non-agricultural use or forestland to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Impact AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not (a) convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance; (b) conflict with existing zones for agricultural use or a Williamson Act contract; (c) conflict with existing zoning for, or cause rezoning of, forestland or timberland; (d) result in the loss of forestland or conservation of forestland to non-forest use; or (e) involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to non-agricultural use or forestland to non-forest use. (No Impact)

The Hub Plan and the two individual development projects would be located within an urban area of the city with a mix of residential and commercial uses, as described in Chapter 2, Project Description, Section C, Project Location, of the Draft EIR. None of the land in the Hub Plan area, including the land for the two individual development projects, is designated for agricultural or forest-related uses. The California Department of Conservation, under the Division of Land Resource Protection's Farmland Mapping and Monitoring Program, identifies the Hub Plan

area as Urban and Built-Up Land and not as any of the “Farmland” classifications.²⁹¹ Additionally, the Hub Plan area is not zoned for agricultural use and is not subject to a Williamson Act contract.²⁹² Therefore, the Hub Plan and the two individual development projects would not convert Farmland to non-agricultural use, would not conflict with any such zoning or contracts, and would not result in the loss of forestland or conversion of forestland to non-forest use.

Mitigation: None required.

Impact C-AG-1: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, in combination with other past, present, or reasonably foreseeable projects, would not result in impacts on agriculture and forestry resources. (No Impact)

As described above, the Hub Plan and the two individual development projects would have no impact with respect to agriculture and forestry resources; therefore, the Hub Plan and the two individual development projects, would not contribute to any cumulatively considerable impact on agriculture and forestry resources.

Mitigation: None required.

²⁹¹ The five agricultural land classifications (“Farmland”) include Prime Farmland, which consists of the land that is able to sustain long-term crop production; Farmland of Statewide Importance, which refers to lands with a similar land use, an irrigation system, and the physical characteristics of Prime Farmland but with minor shortcomings, such as steeper soils; Unique Farmland, which consists of lands with lesser quality soils but capable of producing California’s leading agricultural cash crops; Farmland of Local Importance, which are designated by individual counties; and Grazing Land, which consists of lands that are most suited for livestock grazing. California Department of Conservation, *DOC Maps: Agriculture, 2017*, <https://maps.conservation.ca.gov/agriculture/>, accessed: July 11, 2019.

²⁹² Ibid.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
22. Wildfire: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a) Substantially impair an adopted emergency response plan or emergency evacuation plans?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structure to significant risks including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The City and bordering areas within San Mateo County do not have any state responsibility areas for fire prevention or lands that have been classified as very high fire hazard severity zones.²⁹³ Therefore, this topic is not applicable and is not discussed further.

²⁹³ California Department of Forestry and Fire Protection, *Draft Fire Hazard Severity Zones in LRA: San Francisco County*, http://frap.fire.ca.gov/webdata/maps/san_francisco/fhszl06_1_map.38.pdf, accessed July 10, 2019.

<u>Topics:</u>	<u>Potentially Significant Impact</u>	<u>Less than Significant with Mitigation Incorporated</u>	<u>Less-than-Significant Impact</u>	<u>No Impact</u>	<u>Not Applicable</u>
23. MANDATORY FINDINGS OF SIGNIFICANCE.					
Does the project:—					
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have impacts that are individually limited but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Any of the project’s components, including the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, could result in adverse impacts on the environment related to land use, air quality, noise, cultural resources, transportation and circulation, and wind and shadow. These topics are further analyzed in the EIR. Mitigation measures have been included in this initial study to reduce potential impacts related to biological resources, paleontological resources, and hazardous materials to a less-than-significant level.

None of the project’s components, including the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, would have cumulatively considerable impacts on topics that are fully analyzed in this initial study, as discussed under each applicable environmental topic. A cumulative impact analysis for those topics not addressed in this initial study is provided in the EIR.

Potential adverse effects on human beings have been considered as a part of the analysis of individual environmental topics in this initial study. None of the project’s components, including the Hub Plan, the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street, and the Hub HSD, would result in environmental impacts that would have substantial adverse effects on humans. A discussion of effects on human beings for those topics not addressed in this initial study is provided in the EIR.

F. PUBLIC NOTICE AND COMMENT

The department prepared and distributed a Notice of Availability of a Notice of Preparation (NOP) of an EIR on May 23, 2018. The notices were mailed to a variety of City departments and neighborhood groups, other public agencies, and interested parties. A public scoping meeting was held at 170 Otis Street, 1st Floor, Born Auditorium, San Francisco, California 94103 on June 12, 2018, at which oral comments from the public were received and transcribed. At the public scoping meeting, two people commented. Written comments regarding the scope of the EIR were accepted for a standard 30-day period, from May 23, 2018, until June 22, 2018. Five comment letters were received, none of which arrived after the close of the comment period.

Comments on the following topics were raised during the public scoping period and therefore are addressed in this initial study or in the EIR:

- Project Description
 - Requests the type of planning document be specified
 - Requests an assessment and analysis of community benefits
 - Concern about affordable housing to be provided under the Hub Plan²⁹⁴
- Population and Housing
 - Requests thorough analysis on cumulative social impact of potential housing and office developments
 - Requests discussion of steps to mitigate impact on lower-income Tenderloin and SoMa community
- Transportation and Traffic
 - Signal timing adjustments may be required because of the proposed residential/commercial development.
 - Project's fair-share contribution, financing, scheduling, implementation responsibilities, and lead agency monitoring should be discussed for all proposed mitigation measures.
 - Request to analyze project with a 1 VMT per capita threshold of significance
 - Consider ride-hailing services and e-commerce delivery impacts on loading and possible mitigation
 - Consider work shuttle effects

²⁹⁴ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (Planning Department Case No. 2003.0347).

- Concern that too much vehicular parking is proposed; request for zero private vehicular parking
- Concern about mass transit impacts in the area
- Concern that data from the 1990s will be used
- Requests a community process where affected community members can give feedback on safer and walkable streets.
- Wind
 - Request to include analysis of wind impacts on people bicycling and people walking and potential mitigation
- Alternatives
 - Request for alternatives with a zero vehicular parking ratio, closing 12th Street to motorized vehicle, and forced right turns off of Market Street at Gough Street

G. DETERMINATION

On the basis of this initial study:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document, pursuant to applicable legal standards, and 2) has been addressed by mitigation measures, based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION, pursuant to applicable standards, and (b) have been avoided or mitigated, pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Date _____

 Lisa Gibson
 Environmental Review Officer
 for
 John Rahaim
 Director of Planning

H. INITIAL STUDY PREPARERS

Planning Department, City and County of San Francisco

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San Francisco, CA 94103

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PLACE
POSTAGE
HERE

Elizabeth White
San Francisco Planning Department
Environmental Planning Division
1650 Mission Street, Suite 400
San Francisco, CA 94103

PLEASE CUT ALONG DOTTED LINES

PLEASE RETURN THIS POSTCARD TO REQUEST A COPY OF
THE FINAL ENVIRONMENTAL IMPACT REPORT

(NOTE THAT THE DRAFT EIR PLUS THE RESPONSES TO COMMENTS
DOCUMENT CONSTITUTE THE FINAL EIR)

REQUEST FOR FINAL ENVIRONMENTAL IMPACT REPORT

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
and Hub Housing Sustainability District, Planning Department Case
Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Check one box: Please send me a copy of the Final EIR on CD.
 Please send me a paper copy of the Final EIR.

Signed: _____

Name: _____

Street: _____

City: _____ State: _____ Zip: _____



RESPONSES TO COMMENTS

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District

CITY AND COUNTY OF SAN FRANCISCO
PLANNING DEPARTMENT
CASE NOS. **2015-000940ENV**, **2017-008051ENV**, **2016-014802ENV**

STATE CLEARINGHOUSE NO. 2018052060



SAN FRANCISCO
PLANNING
DEPARTMENT

Draft EIR Publication Date:	July 24, 2019
Draft EIR Public Hearing Date:	August 29, 2019
Draft EIR Public Comment Period:	July 25, 2019 – September 9, 2019
Final EIR Certification Hearing Date:	April 2, 2020



SAN FRANCISCO PLANNING DEPARTMENT

MEMO

DATE: March 12, 2020
TO: Members of the Planning Commission and Interested Parties
FROM: Lisa Gibson, Environmental Review Officer
Re: **Attached Responses to Comments on the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District Draft Environmental Impact Report (Planning Department Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV)**

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

Reception:
415.558.6378

Fax:
415.558.6409

Planning
Information:
415.558.6377

Attached for your review, please find a copy of the Responses to Comments document for the Draft Environmental Impact Report (EIR) of the above-referenced project. **This document, along with the Draft EIR, will be before the Planning Commission for Final EIR certification on April 2, 2020.** The Planning Commission will receive public testimony on the Final EIR certification at the April 2, 2020 hearing. Please note that the public review period ended on September 9, 2019. Any comments provided orally or in writing at the Final EIR certification hearing will not be responded to in writing.

The Planning Commission does not conduct a hearing to receive comments on the Responses to Comments document, and no such hearing is required by the California Environmental Quality Act. Interested parties, however, may always write to commission members or to the president of the commission at 1650 Mission Street and express an opinion on the Responses to Comments document or the commission's decision to certify completion of the Final EIR for this project.

Please note that if you receive the Responses to Comments document in addition to the Draft EIR, you technically have the Final EIR. If you have any questions concerning the Responses to Comments document or the environmental review process, please contact Alana Callagy 415-575-8734.

Thank you for your interest in this project and your consideration of this matter.

RESPONSES TO COMMENTS

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District

PLANNING DEPARTMENT

CASE NOS. **2015-000940ENV, 2017-008051ENV, 2016-014802ENV**

STATE CLEARINGHOUSE NO. 2018052060



SAN FRANCISCO
PLANNING
DEPARTMENT

	Draft EIR Publication Date:	July 24, 2019
	Draft EIR Public Hearing Date:	August 29, 2019
	Draft EIR Public Comment Period:	July 25, 2019 – September 9, 2019
	Final EIR Certification Hearing	April 2, 2020

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1. INTRODUCTION

A. PURPOSE OF THIS RESPONSES-TO-COMMENTS DOCUMENT

The purpose of this responses-to-comments (RTC) document is to present comments submitted on the Draft Environmental Impact Report (Draft EIR) for the Hub Plan,¹ 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD); respond in writing to comments on environmental issues; and revise the Draft EIR as necessary to provide additional clarity. Pursuant to the California Environmental Quality Act (CEQA), Public Resources Code section 21091(d)(2)(A) and (B), the San Francisco Planning Department (department), which has considered the comments received and evaluated the issues raised, is providing written responses to each substantive environmental issue raised by the commenters. In accordance with CEQA, the responses to comments focus on clarifying the project description and addressing physical environmental issues associated with the proposed project. In addition, this RTC document includes text changes to the Draft EIR initiated by the department.

None of the comments received or text changes provide new information that warrants recirculation of the Draft EIR. The comments and text changes did not identify new significant impacts or a substantial increase in the severity of previously identified impacts. Furthermore, the comments and text changes did not identify feasible project alternatives or mitigation measures that are considerably different from those that were analyzed in the Draft EIR and/or alternatives or mitigation measures that the project sponsor has not agreed to implement.

The Draft EIR and RTC document constitute the Final Environmental Impact Report (Final EIR) for the proposed project, in fulfillment of CEQA requirements and consistent with CEQA Guidelines section 15132. If the City and County of San Francisco (City) approves the proposed project, it would be required to adopt CEQA findings and a mitigation monitoring and reporting program (MMRP) to ensure that mitigation measures identified in the Final EIR are implemented.

¹ The Hub Plan would amend the 2008 Market and Octavia Area Plan of the San Francisco General Plan, focusing on the easternmost portions of the Market and Octavia Area Plan (San Francisco Planning Department Case No. 2003.0347).

B. ENVIRONMENTAL REVIEW PROCESS

The EIR process provides an opportunity for the public to review and comment on the proposed project's potential environmental effects and further inform the environmental analysis. As a first step in complying with the procedural requirements of CEQA, a notice of preparation (NOP) was released.

NOTICE OF PREPARATION

The department is the lead agency and responsible for administering environmental review of projects within the city under CEQA. On May 23, 2018, the department released the NOP (included as Appendix A in Volume II of the Draft EIR) to notify the public that it intended to prepare an EIR for the proposed project. In addition to providing a project description, a map showing the project location, and a summary of potential environmental issues related to project implementation, the NOP provided information about the public scoping meeting, which was held on June 12, 2018, at 170 Otis Street, First Floor, Born Auditorium. The purpose of the meeting and publication of the NOP was to solicit comments regarding the scope of the EIR.

The NOP requested agencies and other interested parties to comment on environmental issues that should be addressed in the EIR. The comment letters received in response to the NOP, as well as the scoping meeting transcript, can be reviewed electronically as part of Case File Nos. 2015-000940ENV, 2017-008051ENV, and/or 2016-014802ENV at the San Francisco Planning Department offices at 1650 Mission Street, Suite 400, San Francisco, or on the San Francisco Property Information Map, which can be accessed at <http://sfplanninggis.org/PIM/>. Individual files can be viewed by clicking on the "Planning Applications" link, clicking on the "More Details" link under any of the project's environmental case numbers, and clicking on the "Related Documents" link. Comments received during the scoping process were considered in preparation of the Draft EIR (see page 1-4 of the Draft EIR for a summary of the comments received on the NOP).

DRAFT EIR PUBLIC REVIEW

The department published the Draft EIR for the proposed project on July 24, 2019, and circulated the document to local, state, and federal agencies as well as interested organizations and individuals for a period of 48 days (until September 9, 2019). Copies of the Draft EIR were made available for public review at the following locations: (1) San Francisco Planning Department, Planning Information Counter, 1650 Mission Street; (2) San Francisco Main Library, 100 Larkin Street; (3) San Francisco State University Library, 1630 Holloway Avenue; (4) Hastings College of the Law, Library, 109 Moses Hall; and (5) Stanford University Libraries, Jonsson Library of Government Documents, State and Local

Division, 557 Escondido Mall. Electronic copies were also available for review or download on the department's web page (<http://sf-planning.org/environmental-impact-reports-negative-declarations>).

On July 24, 2019, the department distributed notices of availability regarding the Draft EIR, published notification of its availability in a newspaper of general circulation in San Francisco, posted the notice of availability at the San Francisco County Clerk's office, and posted notices at locations near the project sites. The distribution list for the Draft EIR and all documents referenced in the Draft EIR are available for electronic review at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, or on the San Francisco Property Information Map, which can be accessed at <http://sfplanninggis.org/PIM/>, as described above.

During the Draft EIR public review period, the department received written comments from four public agencies, five non-governmental organizations, and six individuals (or groups of individuals). Multiple submissions were provided by some of these commenters. Attachment A of this RTC document includes copies of the comment letters submitted during the Draft EIR public review period.

During the public review period, the department also conducted a public hearing to receive verbal comments on the Draft EIR. Verbal comments were received from nine non-governmental organizations and three individuals. The public hearing was held before the San Francisco Planning Commission on August 29, 2019, at San Francisco City Hall. A court reporter at the public hearing transcribed the oral comments verbatim and prepared a written transcript (see Attachment B of this RTC document).

RESPONSES-TO-COMMENTS DOCUMENT AND FINAL EIR

The comments received during the public review period for the Draft EIR are the subject of this RTC document, which addresses all substantive written and oral comments on the Draft EIR. Under CEQA Guidelines section 15201, the public may comment on any aspect of the proposed project. Furthermore, CEQA Guidelines section 15204(a) states that the focus of public review should be "on the sufficiency of the Draft EIR in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated." In addition, "when responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." CEQA Guidelines section 15088 specifies that the lead agency is required to respond to comments on the major environmental issues raised during the public review period. Therefore, this RTC document focuses on the sufficiency and adequacy of the Draft EIR with respect to the significance of the environmental impacts of the proposed project that were evaluated in the Draft EIR.

The department will distribute this RTC document to the San Francisco Planning Commission as well as agencies, neighborhood organizations, and persons who commented on the Draft EIR. The Planning Commission will consider the adequacy of the Final EIR—consisting of the Draft EIR and the RTC document—with respect to complying with the requirements of CEQA and chapter 31 of the San Francisco Administrative Code. If the Planning Commission finds that the Final EIR complies with CEQA requirements, it will certify the Final EIR and then consider the associated MMRP.

Consistent with CEQA Guidelines section 15097, the MMRP is designed to ensure implementation of the mitigation measures identified in the Final EIR and adopted by decision makers to reduce or avoid the proposed project's significant environmental effects. CEQA also requires the adoption of findings prior to approval of a project for which a certified EIR identifies significant environmental effects (CEQA Guidelines sections 15091 and 15092). If the EIR identifies significant adverse impacts that cannot be mitigated to less-than-significant levels, the findings must include a statement of overriding considerations for those impacts (CEQA Guidelines section 15093[b]) if the proposed project is approved. The project sponsor would be required to implement the MMRP as a condition of project approval.

C. DOCUMENT ORGANIZATION

This RTC document consists of the following chapters, plus supplemental attachments, as described below:

- *Chapter 1: Introduction* – This chapter includes a discussion of the purpose of the RTC document, the environmental review process for the proposed project, and the organization of the RTC document.
- *Chapter 2: Revisions and Clarifications to the Project Description* – This chapter summarizes changes to the description of the proposed project, as described in Draft EIR Chapter 2, that one or more of the project sponsors initiated since publication of the Draft EIR. The revisions and clarifications consist of new information that updates, supplements, or replaces certain project description information and the associated environmental analysis previously presented in the Draft EIR. This chapter analyzes whether these revisions and clarifications to the proposed project would result in any new environmental impacts that were not already discussed in the Draft EIR and initial study or a substantial increase in the severity of previously identified significant environmental impacts.
- *Chapter 3: List of Persons Commenting* – This chapter provides a list of the agencies, organizations, and individuals who submitted written comments during the public review period or spoke at the public hearing for the Draft EIR. The list is organized into the following groups: federal, state, regional, and local agencies and boards and

commissions; organizations; and individuals. The list identifies whether the persons submitted comments in writing (letter, email, or fax), verbally at the Draft EIR public hearing, or both.

- *Chapter 4: Comments and Responses* – This chapter contains all comments on the Draft EIR made verbally during the public hearing or received in writing during the public comment period. The comments are organized by topic and, where appropriate, by subtopic. Comments are coded as follows:
 - Comments from agencies are designated by “A-” and an acronym for the agency’s name.
 - Comments from non-governmental organizations are designated by “O-” and an acronym for the organization’s name.
 - Comments from individuals are designated by “I-” and the commenter’s last name.

In cases where a commenter has spoken at the public hearing and submitted written comments, or has submitted more than one comment letter or email, the commenter’s last name, or acronym or abbreviation for the organization represented by the commenter, is followed by a sequential number by date of submission.

Following each comment or group of comments on a topic are the department’s responses. The responses generally provide clarification of the Draft EIR text. They may also include revisions or additions to the Draft EIR. Such changes are shown as indented text, with new text underlined and deleted text shown with ~~striketrough~~.

- *Chapter 5: Draft EIR Revisions* – This section includes all changes to the Draft EIR text and graphics noted in the responses to the comments. Staff-initiated changes to clarify information presented in the Draft EIR are also included, as applicable, and highlighted by an asterisk (*) in the margin to distinguish them from text changes in response to comments. These changes and minor errata do not result in significant new information with respect to the proposed project, including the level of significance of project impacts or any new significant impacts.

RTC document appendices (called “attachments” to distinguish them from the Draft EIR appendices) include the Draft EIR Comment Letters (Attachment A); the August 29, 2019, Draft EIR Hearing Transcript (Attachment B); the August 7, 2019, Historic Preservation Commission Hearing Transcript (Attachment C); and supporting information to Transportation and Circulation (Attachment D). The comment letters in Attachment A are organized in the order presented in the List of Persons Commenting (see chapter 3).

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2. REVISIONS AND CLARIFICATIONS TO THE PROJECT DESCRIPTION

A. INTRODUCTION

Since publication of the Draft Environmental Impact Report (Draft EIR) on July 24, 2019, the project sponsors have initiated minor revisions to the proposed project described in Draft EIR Chapter 2, Project Description. This chapter summarizes these minor revisions, shows the updates to the text in the Draft EIR (new text is underlined and deletions are shown in ~~strike through~~), and describes the environmental impacts of the revisions. Draft EIR text revisions shown in this chapter are specifically related to the changes made to Chapter 2, Project Description. Additional Draft EIR text revisions and revisions made in response to comments received on the Draft EIR are presented in Chapter 4, Comments and Responses. All text changes to the Draft EIR, including staff- and project sponsor-initiated text revisions, are summarized in Chapter 5, Draft EIR Revisions.

The revisions clarify, expand, or update the information presented in the Draft EIR. As discussed below, the revisions do not add significant new information to the Draft EIR under CEQA Guidelines section 15088.5 and do not result in any new significant impact not already identified in the Draft EIR or a substantial increase in the severity of an impact identified in the Draft EIR or the initial study prepared for the project. Therefore, recirculation of the Draft EIR is not required. Mitigation measures identified in the Draft EIR would continue to be required to reduce or avoid significant environmental impacts. No new or modified measures would be required to mitigate the significant impacts identified for the proposed project in the Draft EIR.

Section 15088.5 of the CEQA Guidelines requires recirculation of a Draft EIR when “significant new information” is added to the EIR after publication of the Draft EIR but before certification. The CEQA Guidelines state that information is “significant” if “the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement.”

Section 15088.5 defines “significant new information” that triggers a requirement for recirculation as the identification of a new significant impact, a substantial increase in the severity of an impact (unless mitigation is adopted to reduce the impact to a less-than-significant level), or the identification of a new feasible alternative or mitigation measure that would lessen the environmental impacts of the proposed project that the project sponsor is unwilling to adopt. CEQA Guidelines section 15088.5(b) states that recirculation is not required if “new information in the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.”

B. SUMMARY OF PROJECT DESCRIPTION REVISIONS

EDITS RELATED TO PROPOSED PLANNING CODE LANGUAGE

As part of the Hub Plan, the San Francisco Planning Department (department) developed draft planning code language for implementing the objectives and policies of the Hub Plan. After publishing the Draft EIR, the department further developed the code language for effectuating the plan and identified text changes for the EIR to reflect this.

REMOVE “DOWNTOWN” FROM THE SPECIAL USE DISTRICT NAME

Currently, the San Francisco Planning Code identifies the special use district in the Hub Plan area as the “Van Ness and Market Downtown Residential SUD.” The department proposes updating the code to remove “Downtown” from the district’s name.

REQUIRE A CONDITIONAL USE AUTHORIZATION FOR FORMULA RETAIL

The Hub Plan sponsor, the department, proposes requiring a conditional use entitlement for formula retail uses at the properties proposed for rezoning to Downtown General Commercial (C-3-G) from Neighborhood Commercial Transit (NCT-3). This would maintain existing controls for formula retail at properties that were previously zoned NCT-3. Parcels east of Van Ness and South Van Ness avenues would not be subject to this requirement, as is the case today.

REQUIRE A CONDITIONAL USE AUTHORIZATION FOR RETAIL USES GREATER THAN 6,000 SQUARE FEET

The Hub Plan sponsor, the department, proposes requiring a conditional use entitlement for retail uses at the properties proposed for rezoning to C-3-G from NCT-3. This would maintain existing controls for retail uses at properties that were previously zoned NCT-3.

INCREASE HUB IMPACT FEE USE BOUNDARY

The Hub Plan sponsor, the department, proposes expanding the area in which impact fees could be spent from 250 feet from the Market and Octavia Area Plan boundary to 1,250 feet from this boundary. As discussed in the Draft EIR, the Hub Plan area is the easternmost portion of the Market and Octavia Area Plan area. This action would allow flexibility with respect to spending impact fee money on infrastructure projects (e.g., open space, transit, street, childcare) adjacent to the Market and Octavia Area Plan area.

PARKING RATIO FOR PROJECTS WITH 25 PERCENT ONSITE AFFORDABLE HOUSING

For projects where at least 25 percent of the onsite housing units are affordable units, the department proposes updating the planning code to allow transferring permitted non-residential parking spaces to residential parking space. The code would allow this transfer to

residential parking space as long as the total number of independently accessible parking spaces provided does not exceed the sum of the maximum number of residential and non-residential parking spaces permitted by the planning code and the total number of parking spaces used for residential parking does not exceed 0.4 space per each residential unit.

The Draft EIR stated that the project sponsor for the 30 Van Ness Avenue Project “would seek a zoning change that would allow a mixed-use project in the Hub Plan area and provide at least 25 percent onsite (or 33 percent offsite) affordable housing to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would total 7 percent of the occupied floor area” (Draft EIR p. 2-68). The planning code text change outlined in the paragraph above would be the mechanism by which the sponsor would request the transfer of commercial parking spaces to residential parking spaces.

The analysis in the Draft EIR evaluated 243 vehicle parking spaces for the 30 Van Ness Avenue Project, assuming up to 610 residential units. Since publishing the notice of preparation and Draft EIR, the project sponsor for the 30 Van Ness Avenue Project has reduced the number of residential units; consistent with this change, the number of vehicle parking spaces has also been reduced. The 30 Van Ness Avenue Project now proposes 148 vehicles plus five car-share spaces.

In the second paragraph, third sentence on page 2-56 of the project description, the vehicular off-street parking text has been updated to show the reduction in the number of parking spaces proposed:

In addition, the site for the 30 Van Ness Avenue Project would include approximately 76,320 square feet of garage uses for ~~148243~~ 148 vehicular parking spaces within two below-grade garage levels.

Table 2-3 and associated text describing vehicular off-street parking has been modified on page 2-68 of the project description as follows, based on updates and the reduction in the number of parking spaces proposed:

TABLE 2-3. PROPOSED VEHICULAR, LOADING, AND BICYCLE PARKING AT 30 VAN NESS AVENUE

	Number of Parking Spaces
Vehicular Off-Street Parking Spaces (total) ¹	<u>148243</u> ²
<i>ADA</i>	<u>57</u>
<i>Electric-Vehicle Charging and Electric-Vehicle-Ready Spaces</i>	25
<i>Mechanical Stackers</i>	<u>142211</u>
<i>Car-Share Spaces</i>	5
Off-Street Freight Loading Spaces	3
Off-Street Service Loading Spaces	3
Bicycle Parking Spaces (total)	349
<i>Class 1 Spaces</i>	301
<i>Class 2 Spaces</i>	48

Source: 30 Van Ness Development, LLC, 2019~~8~~.

¹ The project sponsor would seek a zoning change that would allow a mixed-use project in the Hub Plan area and provide at least 25% onsite (or 33% offsite) affordable housing to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would total 7% of the occupied floor area. The total number of vehicular parking spaces would be approximately 148243.

² ~~Total number of vehicular parking spaces does not add up to 243 because the subsets of the 243 vehicular parking spaces overlap with each other. For example, some of the car share spaces are proposed as mechanical stackers.~~

The text on page 2-68 of the project description has been revised as follows:

Within the two basement levels, 30 Van Ness Development, LLC, proposes a total of up to 148243 vehicular parking spaces.²⁵ These would include ~~five~~seven Americans with Disabilities Act-compliant spaces, five electric-vehicle charging spaces, and 20 electric-vehicle-ready spaces.²⁶

In the second paragraph, second sentence on page 3.B-66 of the Transportation and Circulation section, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed:

The 30 Van Ness Avenue Project would provide a maximum of 148243 vehicular parking spaces for the 350 to 610 residential units; this analysis conservatively uses the lowest residential unit count of 350, or 0.4269 vehicular parking space per unit. The parking rate of 0.6942 space per unit is slightly ~~higher~~lower than the neighborhood’s average of 0.56 space. ~~However, given that existing residential VMT per capita for the TAZ (i.e., 2.5 VMT per capita) is substantially lower than the threshold of 15 percent below the regional daily residential VMT per capita (i.e., 17.2 VMT per capita), it is unlikely that the 30 Van Ness Avenue Project’s ratio of parking spaces per dwelling unit would result in an exceedance of the residential VMT threshold.~~ Therefore, the 30 Van Ness Avenue Project would not substantially increase VMT per capita with the residential use.

In the fourth paragraph, first sentence on page 3.B-69 of the Transportation and Circulation section, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed:

The 30 Van Ness Avenue Project would provide a total of approximately 148243 vehicular parking spaces in below-grade levels that would be accessed from Fell Street, similar to where vehicular access to the existing building on the project site is provided (there are about 40 vehicular parking spaces on the ground floor and mezzanine level of the existing building on the project site).

In the third paragraph, first sentence on page 3.B-88 of the Transportation and Circulation section, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed:

The 30 Van Ness Avenue Project would provide 148243 vehicular parking spaces for 610 residential units and 371,000 square feet of commercial uses.

On page 5-25 in Chapter 5, Alternatives, Table 5-2 has been revised as follows:

TABLE 5-2. 30 VAN NESS AVENUE COMPARISON

Category	Proposed 30 Van Ness Avenue Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative
Residential units	610	0	0
Retail	21,000	13,840	15,000
Office	350,000	184,100	350,000
Privately owned public open space	3,300	0	3,300
Commonly accessible open space – residential	29,280	0	0
Podium height	150 feet	75 feet	150 feet
Building height	520 feet		
Stories	<u>475</u>	5	11
Basement levels	2	0	1
Employees	1,520	710	1,503
Parking spaces	<u>148243</u>	42	89
Loading Spaces	6	0	5
Bicycle spaces	310 class 1, 48 class 2	0	72 class 1, 15 class 2

On page 5-26 in Chapter 5, Alternatives, the second sentence has been revised as follows:

This alternative would include one below-grade parking level with 89 parking spaces, two car-share spaces, 87 bicycle parking spaces, five loading spaces, and require 1,503 permanent employees, while the proposed project would include two below-grade parking levels with ~~148243~~ parking spaces, five car-share spaces, 358 bicycle parking spaces, six loading spaces, and require 1,520 permanent employees.

LAND USE (ZONING)

The Hub Plan sponsor, the department, proposes rezoning four parcels from NCT-3 to Public (P) designations. The four parcels, assessor's parcel numbers 3502/112, 3503/002, 3513/071, and 3513/074, are located under the U.S. 101 overpass and owned by governmental agencies. Converting these parcels to P is consistent with City and County of San Francisco (City) policy for designation of publicly owned parcels as P. The Draft EIR stated that under the proposed zoning, there would be two zoning districts, C-3-G and P. The rezoning of these four parcels from NCT-3 to P districts would be consistent with the Draft EIR.

On page 2-20, Figure 2-5, Proposed Hub Plan Area Zoning District [Revised], would be revised to show rezoning of the four parcels to the P designation.

In the second paragraph, second sentence on page 3-4 of the Approach to the Analysis subsection, the text has been updated to clarify that four parcels would be zoned P:

The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G and NCT-3 to P at four government-owned sites in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market Downtown Residential Special Use District to encompass the southern portion of the Hub Plan area.

Footnote 11 on page E.3-4 of the wind section has been updated to clarify that four parcels would be zoned P:

Although some portions of the Hub Plan area are currently not located in the C-3 District, the Hub Plan would change all parcels to C-3, with the exception of some Public (P) parcels that would remain, and rezone four parcels owned by governmental agencies from NCT-3 to P zoning designations.

In the second paragraph, third sentence on page 3.E-19 of the wind section, the text has been updated to clarify that four parcels would be zoned to P designation:

However, the Hub Plan would rezone all of the Hub Plan area to Downtown General Commercial (C-3-G) zoning, with the exception of the two small pockets of existing Public (P) zoning and four new P parcels.

ENVIRONMENTAL IMPACTS

The minor modifications and refinements to the planning code text, the update to the proposed district map, and rezoning of four governmental agency-owned parcels to P, as identified above, would not result in changes to the assumptions, analyses, or conclusions in the assessment of the environmental impacts of the proposed project presented in Draft EIR Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, and the initial study (Draft EIR Appendix B) for any resource topic.

EDITS RELATED TO HEIGHT REVISIONS

MAXIMUM BUILDOUT HEIGHTS FOR THE 18 PARCELS

The San Francisco Planning Department, through the Hub Plan, proposes to increase heights at 18 sites in the Hub Plan area. Previously, the project description in the Draft EIR stated that the department would amend the planning code height map to increase the permitted maximum height and bulk limits at those 18 sites. However, the department now proposes allowing additional height and bulk, in excess of current controls, up to the maximum height and bulk limits proposed by the Hub Plan through an exception process under planning code section 309. Therefore, the planning code would be amended to create an exception to San Francisco Planning Code section 309 to allow projects to seek additional height and bulk on the 18 sites up to the maximums indicated on the zoning map. Other land use and zoning changes, unless addressed in this responses-to-comments (RTC) document, would remain as previously identified in the Draft EIR. For example, in the Hub Plan area, one P district parcel (33 Gough Street) and all parcels in the NCT-3 and Hayes Neighborhood Commercial Transit (Hayes NCT) districts would be rezoned to C-3-G. As identified in the Draft EIR, the Hub Plan would expand the Van Ness and Market Residential Special Use District to encompass the entire Hub Plan area.

As now proposed, if a future project sponsor wishes to develop a project with a height greater than permitted under the existing zoning *and* its site is one of the 18 analyzed in the EIR, the project sponsor could seek approval for this additional height and bulk through a section 309 exception. The section 309 exception could be requested for height and bulk allowances up to the height and bulk increases studied in the Draft EIR. These limits would be reflected in the planning code and on the zoning maps. The existing heights permitted in the plan area are shown in Figure 2-6, Existing Hub Plan Area Height and Bulk District. Maximum heights for which a project sponsor could seek an exception are shown in Figure 2-7, which this RTC document revises to be titled "Proposed Hub Plan Area Maximum Height and Bulk." As now proposed, the total maximum heights on the 18 sites would not exceed the heights studied in the Draft EIR, but the mechanism by which sponsors would receive additional height and bulk has been further refined. Allowing the additional height and bulk through a section 309 exception process, instead of permitting the additional height and bulk as of right, would not

result in a physical impact on the environment. This change to the approval process would not change the expected amount, size, or type of development anticipated under the Hub Plan compared to that previously described in the project description or analyzed in the EIR.

On page 2-3, the second sentence has been updated for the proposed entitlement process as follows:

Of the sites proposed for ~~increased height~~^{upzoning}, two individual development project sites within the Hub Plan area at 30 Van Ness Avenue and 98 Franklin Street are evaluated at a project-specific level in this EIR, meaning that no additional environmental review will be required for these projects following certification of the EIR, unless their project descriptions are revised in a way that would trigger supplemental or subsequent environmental review under CEQA.

On page 2-21, the first two sentences of the fifth paragraph have been updated for the proposed entitlement process as follows:

The ~~proposed zoning under the Hub Plan proposes~~ ^{would allow for} additional height at the two major intersections noted above, with proposed maximum height limits ranging from 250 to up to 650 feet at these intersections. ~~This Hub Plan proposed zoning~~ would also increase maximum height limits at other select sites throughout the Hub Plan area.

On page 2-23, Figure 2-7, Proposed Hub Plan Area Maximum Height and Bulk Districts [Revised], would be revised to show that the heights are the maximum permitted.

On page 2-25, the second sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for the 1500–1540 Market Street Project as follows:

This site is included as one of the Hub Plan sites considered ~~for upzoning as it would~~ ^{to} allow for an additional 50 feet above what was approved as part of the previous One Oak Project.

On page 2-26, the fifth sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for the 10 South Van Ness Avenue Project as follows:

This EIR for the Hub Plan considers this site for a maximum height limit of ~~upzoning to~~ 590 feet (consistent with the height analyzed as the variant considered in the parallel EIR).

On page 2-27, which continues onto page 2-28, the last sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for the 30 Otis Street Project as follows:

This site is included as one of the Hub Plan sites considered ~~to for upzoning as it would~~ allow for an additional approximately 70 feet above what is being considered in the previously certified EIR.

On page 2-29, the last sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for the 42 Otis Street Project as follows:

This site is included as one of the Hub Plan sites considered ~~to for upzoning as it would~~ allow for an additional 15 feet above what was approved as part of the previously proposed project.

On page 3-6, the text under letter “e” of the notes to Table 3-1, Projected Residents and Employees within the Hub Plan Area and the Individual Project Sites, has been modified as follows:

however, there ~~is a loss of approximately 1,920~~ ~~approximately 125~~ employees that could ~~be added on this site as a result from~~ of the ~~proposed height increases~~ ~~upzoning~~ under the Hub Plan ~~are accounted for in the 275 additional employees listed in this table under~~ the Hub Plan.

Changing the process by which taller heights would be entitled on the previously analyzed 18 sites would not result in any physical environmental effects that have not already been evaluated in the EIR; therefore, the proposed code language is consistent with the analysis in the Draft EIR.

PODIUM HEIGHTS

Since publishing the Draft EIR, the department proposed increasing the maximum podium heights from 120 to 140 feet at four of the 18 sites that are the focus of the EIR. The four sites are 30 Van Ness Avenue, 1 South Van Ness Avenue, 10 South Van Ness Avenue, and 1500–1540 Market Street. Draft EIR Figure 2-7, Proposed Hub Plan Area Maximum Height and Bulk ~~Districts~~ [Revised], has been revised to show these changes. The additional 20 feet of podium height is anticipated to result in one additional story at the podium level.

On page 2-23, Figure 2-7, Proposed Hub Plan Area Maximum Height and Bulk ~~Districts~~ [Revised], has been revised to reflect increasing maximum podium heights to 140 feet.

ENVIRONMENTAL IMPACT

The modifications and refinements to the planning code text identified above (i.e., allowing development up to the heights studied in the Draft EIR for the 18 sites through the use of a planning code section 309 exception and allowing taller podiums for the sites at 30 Van Ness Avenue, 1 South Van Ness Avenue, 10 South Van Ness Avenue, and 1500–1540 Market Street) would not result in changes to the assumptions, analyses, or conclusions in the Draft EIR’s assessment of the environmental impacts of the project presented in Draft EIR Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, and the initial study (Draft EIR Appendix B) for any resource topic.

With respect to wind and shadow, as documented in a supplemental wind memorandum, the taller podium at 30 Van Ness Avenue, 1 South Van Ness Avenue, 10 South Van Ness Avenue, and 1500–1540 Market Street would not change the results previously identified in the final wind report and summarized in the Draft EIR.¹ Moreover, although increasing the podium heights by 20 feet at these four sites could incrementally increase the overall amount of net new shadow cast by the Hub Plan, no publicly accessible open spaces would receive additional shadow, and no new publicly accessible open spaces that were not affected by net new shadow cast by the Hub Plan would receive net new shadow due to this change.²

PROJECT DESCRIPTION CHANGES DUE TO 170 OTIS STREET AND THE UPDATED POPULATION, HOUSING, AND JOBS ESTIMATES

170 OTIS STREET

This site contains multiple addresses/parcels. The current site is split between 85-X and 125-X height and bulk zoning districts. The Draft EIR analyzed, at the programmatic level, shifting height designations for alignment with the footprint of the existing 115-foot-tall office building and rezoning the area of the existing building to 150-X. In addition, the proposed rezoning at 170 Otis Street would create a 45-X height and bulk-zoned buffer along the west side of the site to provide a more appropriate transition to the existing low-scale housing along that side as well as a similar buffer from the residential building at 150 Otis Street.

The Draft EIR studied the impacts of two additional stories of office uses, which would result in approximately 125 additional jobs, on top of the existing office building at this site. However, since publication of the Draft EIR, it has been determined by the department that the existing structure could eventually be replaced with a new housing development. A residential development using the taller heights (150 feet) and the same footprint as analyzed in the Draft EIR would accommodate approximately 450 housing units. Therefore, the Draft EIR project description for this site has been revised to assume 450 housing units on this site rather than the addition of two floors of office space to the existing office building.

The site is owned by the City and occupied by the Health and Human Services Agency. Because this is a City office, it is assumed that the employees would not leave San Francisco but instead be moved to another existing office space in the city. The residential units that would be added to the Hub Plan as a result of this revision fit within the total number of units studied in the

¹ RWDI, memorandum to Alana Callagy, San Francisco Planning Department, *Market/Octavia Hub Plan*, November 22, 2019.

² Prevision Design, memorandum to Alana Callagy, San Francisco Planning Department, *Review of Possible Changes to Hub Plan Shadow Analysis Findings Due to Proposed Podium-Level Zoning Height Modification of 30 Van Ness Avenue, 10 South Van Ness Avenue, 1 South Van Ness Avenue, and 1500–1540 Market Street*, November 15, 2019.

Draft EIR, given the housing “buffer” that was used in estimating future housing projections. Specifically, the Draft EIR relied on projections that included a 15 percent housing growth buffer, which was added to the initial housing projection, to allow other growth in the plan area, such as projects that would take advantage of HOME SF³ and other density-bonus programs. The 15 percent buffer used in the Draft EIR was approximately 1,057 units. The additional 450 units now proposed at 170 Otis Street fits within this buffer. Technical studies that relied on population projections rather than building massing—specifically, transportation, air quality, and noise studies—also incorporated the 15 percent buffer assumption. In addition, as stated on page 3-6 of the Draft EIR, the Hub Plan Draft EIR contains projections of population and housing growth through 2040, but the Draft EIR does not include the population and housing projections as a cap or limit to growth within the areas that would be subject to the Hub Plan. Rather, the growth projections are based on the best estimates that were available at the time when the Draft EIR was published. These projections do not constitute “caps” on permissible development or estimates of maximum capacity at buildout under the proposed rezoning. The growth projections in the Draft EIR are an analytical tool used to understand and contextualize the potential environmental impacts of the Hub Plan.

POPULATION PROJECTIONS

Consistent with and in addition to the refinements associated with 170 Otis Street discussed above, the department updated the overall population estimates, including housing, job, and population projections, for the Hub Plan area, based on the more detailed and/or accurate information that became available during ongoing planning efforts. The biggest difference between the original and revised projections is attributable to the proposed changes to 170 Otis Street; however, some minor adjustments were made to some of the other 18 sites studied in the Draft EIR that were proposed for height increases. These minor adjustments were based on closer examination of the types and sizes of developments that those sites would most likely accommodate in the future. The updated population estimates, as well as the underlying methodology that the estimates were based on, are discussed in the *Market and Octavia Plan Amendment (Hub Plan) Updated Population Estimates and Methodology* memorandum.⁴

The differences between the housing, population, and job estimates attributed to the Hub Plan in the Draft EIR and the updated numbers used in the RTC document are as follows: approximately 430 additional housing units (an increase from the 8,100 housing units reported in the Draft EIR to the 8,530 housing units assumed in this RTC); approximately 840 additional

³ HOME-SF is an optional program for developers who construct mixed-income units in certain areas of San Francisco for which density bonuses and zoning modifications are provided based on the affordability of the residential units. Information about the program is available at <https://sf-planning.org/home-sf>.

⁴ San Francisco Planning Department, *Market and Octavia Plan Amendment (Hub Plan) Updated Population Estimates and Methodology*, January 2020.

residents (an increase from the 15,700 residents reported in the Draft EIR to the 16,540 assumed in this RTC); and approximately 1,920 fewer jobs (275 additional jobs were reported in the Draft EIR; a net decrease in the number of jobs totaling approximately 2,194 is assumed in this RTC).⁵

As discussed above, the refinements to the estimates were made through ongoing planning efforts since publication of the Draft EIR. Overall, the increases in housing units and population (the latter being a direct product of the number of housing units) constitute a small percentage of the overall projected growth in the Hub Plan area, whereas the reduction in jobs renders the analysis provided in the Draft EIR conservative. Moreover, as stated in the Draft EIR and above, the growth projections in the EIR are an analytical tool and based on the best estimates available at the time of analysis; they do not constitute “caps” on permissible development or estimates of maximum capacity at buildout under the proposed rezoning.

As noted above, these projections have been updated as a result of updates to the project description since publication of the Draft EIR. In addition, the projections relied upon in the Draft EIR included a 15 percent buffer. The revised projections also include this 15 percent buffer. With these revisions, the total number of residential units analyzed in the Draft EIR remains greater than the number of units now proposed.

On page S-2, the fourth sentence of the third paragraph has been revised as follows:

If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,530~~8,100~~ new residential units (approximately 16,540~~15,700~~ new residents).

On page S-8, the third sentence of the second paragraph (under the first bullet) has been revised as follows:

As such, development assumptions for this alternative would be the same as those for the Hub Plan and Hub HSD, including the addition in the Hub Plan area of approximately 8,530~~8,100~~ residential units, which includes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

On page 2-21, the fourth sentence of the fifth paragraph has been revised as follows:

If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,530~~8,100~~ new residential units (approximately 16,540~~15,700~~ new residents) compared with existing conditions.

On page 3-4, the last sentence of the third paragraph has been revised as follows:

The Hub Plan could result in up to approximately 8,530~~8,100~~ housing units, 16,540~~15,700~~ new city residents, and a loss of approximately 1,920 ~~275 new~~ jobs.

⁵The updated numbers have been rounded slightly in the RTC.

On page 3-4, the first sentence of the fourth paragraph has been revised as follows:

It is noted that the 8,530~~8,100~~ housing units incorporates a 15 percent buffer beyond what was originally projected under the CEQA baseline for the plan (approximately 7,400~~7,040~~ housing units).

On page 3-4, the fifth paragraph, which continues on page 3-6, has been revised as follows:

It is further noted that although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects is (1,534) ~~surpasses the total number of jobs listed in Table 3-1 for the entire Hub Plan area~~ is expected to lose jobs as a result of the Hub Plan (275), because it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net decrease of approximately 1,920~~275~~ jobs area wide.

On pages 3-5 through 3-6, Table 3-1 (this table also appears as Initial Study Table E.3-4 on pages E.3-9 through E.3-10; therefore, these revisions also apply to Initial Study Table E.3-4) has been revised as follows:

TABLE 3-1. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Residents			
The Hub Plan	<u>8,530</u> 8,100 units ^a	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	<u>16,540</u> 15,700 residents ^c
30 Van Ness Avenue ^d	520,000 sf/610 units 229 studios 229 one-bedroom units 92 two-bedroom units 60 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	1,067 residents
98 Franklin Street ^d	384,080 sf/345 units 172 studios 86 one-bedroom units 54 two-bedroom units 33 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	587 residents

TABLE 3-1. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Employees			
The Hub Plan – Commercial	N/A	N/A	-1,920 275 employees ^e
30 Van Ness Avenue – Office	350,000 sf	240 sf/employee	1,460 employees ^f
30 Van Ness Avenue – Retail	21,000 sf	350 sf/employee	60 employees ^f
98 Franklin Street – Retail	3,100 sf	350 sf/employee	9 employees ^g
98 Franklin Street – Institutional (School)	81,000 sf	N/A	5 employees ^g

Source: San Francisco Planning Department, *Hub Plan Development Estimates and Methodology, June 13, 2019 Updated Population Estimates and Methodology, January 2020.*

^a Future residential development under the Hub Plan was calculated by taking anticipated total gross square footage and dividing by 1,200 gross square feet per residential unit. This number was then increased by 15 percent to account for the potential density bonuses, including the State Density Bonus Program, 100 percent Affordable Housing Bonus Program, and HOME-SF (the City and County of San Francisco’s [City’s] local density bonus program).

^b Two or more bedrooms.

^c Future population estimated from a weighted average of 1.94 persons per developed residential unit, assuming a unit mix of 20 percent studio, 40 percent one bedroom, and 40 percent two bedroom, with average occupancy of 1.3, 1.7, and 2.5, respectively. Future population estimate reflects the 15 percent increase in the number of residential units assumed in note “a,” above.

^d The total number of residential units and residents under the 30 Van Ness Avenue and 98 Franklin Street projects is included in the totals provided for the Hub Plan.

^e Jobs were estimated from anticipated gross square footage of development by use type. It is noted that the transportation model run that was completed before 170 Otis Street was added as one of the Hub Plan sites; however, there is a loss of approximately 1,920 ~~approximately 125~~ employees that could be added on this site as a result from the proposed height increases ~~sup zoning~~ under the Hub Plan are accounted for in the 275 additional employees listed in this table under the Hub Plan.

^f This table presents the estimated maximum number of employees that would be generated by the 30 Van Ness Avenue Project. As discussed in Chapter 3, the existing uses at the project site include general office, pharmacy, and restaurant uses. Based on the employee density factors used by the ~~planning~~ department for non-residential uses, these existing uses, in combination, would yield approximately 816 existing employees at the site. Thus, the total number of net new employees that would be generated by the proposed 30 Van Ness Avenue Project is approximately 700. The SF-CHAMP transportation model that was run for the proposed project, with output that feeds into the transportation, air quality, and noise analyses in this EIR, nets out the existing uses at this site.

^g This table does not take into account the approximately two employees associated with the existing parking lot use at 98 Franklin Street.

On page 3.B-48, the first sentence has been revised as follows:

Subsequent development under the Hub Plan is projected to result in a net increase in the number of residential units in the Hub Plan area (i.e., 8,530~~8,100~~ additional units).

On page 4-4, the second to last sentence of the fourth paragraph has been revised as follows:

If all of the sites identified in Table 2-1 were to be developed to the proposed maximum height limit, the changes would result in approximately 8,530~~8,100~~ new residential units (approximately 16,540~~15,700~~ new residents) compared with existing conditions.

On page 4-7, the first paragraph has been revised as follows:

Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. The two individual development projects at 30 Van Ness Avenue and 98 Franklin Street are private development projects that include housing, retail, office space, and institutional uses (i.e., the French American International School [FAIS]). The Hub Plan, Hub HSD, and the two individual development projects would induce growth by constructing new housing units. Development under the Hub Plan could result in housing for up to 16,540~~15,700~~ new city residents, assuming an occupancy rate of 1.94 people per unit in the proposed 8,530~~8,100~~ new units (see Section E.3, Population and Housing, of the initial study, Appendix B). This total includes the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which would result in housing for a combined total of approximately 1,654 residents. The Hub Plan could also result in a loss of up to approximately 1,920 ~~275~~ new jobs. Although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) would result in new jobs in the area ~~surpasses the total number of jobs for the entire Hub Plan area (275)~~, it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall decrease~~net increase~~ of approximately 1,920~~275~~ jobs area wide.

On page 5-8, the first sentence of the fourth paragraph has been revised as follows:

The total number of new residential units developed under Alternative A would be approximately 5,300~~6,000~~ (compared to the potential for approximately 8,530~~8,100~~ new units under the Hub Plan).

On page 5-23, the third-to-last sentence under the Alternative B description has been revised as follows:

As such, development assumptions for this alternative would be the same as those for the Hub Plan and Hub HSD, including the addition in the Hub Plan area of

approximately ~~8,530~~~~8,100~~ residential units, which includes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

On page 5-23, the second-to-last sentence of the fourth paragraph has been revised as follows:

Alternative C, the Hub Plan Reduced Intensity Alternative, would reduce the buildout assumptions at the 18 sites identified for height and bulk increases detailed in Table 2-1, p. 2-24, with an estimated 7,802 new residential units (compared with approximately ~~8,530~~~~8,100~~ new residential units under the Hub Plan).

On page E.3-9, the last sentence of the second paragraph has been revised as follows:

As shown in Table E.3-4, the Hub Plan could result in up to ~~16,540~~~~15,700~~ new city residents.

On page E.3-12, the following text has been revised as follows:

As shown in **Table E.3-5**, the Hub Plan could result in up to approximately ~~16,540~~~~15,700~~ new residents and ~~275 new~~ a decrease of approximately 1,920 jobs in the Hub Plan area compared with existing conditions. It is noted that although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) surpasses the total number of jobs listed in **Table E.3-4**, p. E.3-9, for the entire Hub Plan area (~~-1,920~~~~275~~), it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net ~~decrease~~increase of approximately ~~1,920~~~~275~~ jobs area-wide.

On page E.3-12, Table E.3-5 has been revised as follows:

TABLE E.3-5. EXISTING AND FORECAST HOUSING AND POPULATION IN THE HUB PLAN AREA

	Existing	2040 No Project (Growth Allowed under Current Zoning, <u>with Buffer</u>) (Total)	The Hub Plan, <u>with Buffer</u> (Net Change)	2040 with the Hub Plan (Cumulative Condition) (Total)
Households (units)	3,500	9,300 <u>9,538</u>	8,100 <u>530</u>	22,500 <u>21,307</u>
Population	8,100	19,300 <u>19,841</u>	15,700 <u>16,540</u>	47,500 <u>41,447</u>
Jobs	13,200 <u>13,600</u>	10,400 <u>10,731</u>	275 <u>-1,920</u>	11,600 <u>5,092</u>

Source: ~~San Francisco Planning Department, Hub Plan Development Estimates and Methodology, June 13, 2019.~~ San Francisco Planning Department, Market Octavia Plan Amendment (Hub Plan) Updated Population Estimates and Methodology, January 2020.

On page E.3-12, the last paragraph has been revised as follows:

In total, the two individual development projects could employ up to 1,534 workers (a net increase of 822 workers compared to existing conditions), which is more than the total new jobs under the Hub Plan (~~-1,920~~~~275~~ jobs). However, it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net ~~decrease~~~~increase~~ of approximately 1,920~~275~~ jobs area wide.

Footnote 52 on page E.3-13 has been revised as follows:

To calculate the amount of growth in the city and Bay Area, the total number of new residents added under the Hub Plan (16,540~~15,700~~) is divided by the anticipated growth in the city (195,300) and Bay Area (1,512,300). City growth: (16,540~~15,700~~ new residents/195,300) x 100 = 8%; Bay Area growth: (16,540~~15,700~~ new residents/1,512,300) x 100 = 1%.

The following text on page E.3-14 has been revised as follows:

As shown in **Table E.3-4**, p. E.3-9, the Hub Plan could result in a reduction of 1,920~~275~~ ~~new~~ jobs in the Hub Plan area compared with existing conditions.

On page E.3-15, the second sentence has been revised as follows:

The Hub Plan's key strategies for enhancing development potential include increased densities, a wide and flexible range of uses, and increased height limits. With these changes to height and bulk limits, as well as development densities, the department estimates that 8,530~~8,100~~ additional housing units could be developed in Hub Plan area by 2040.

On page E.3-16, the first sentence of the second paragraph has been revised as follows:

As discussed above, the Hub Plan, including the two individual development projects, would allow for the construction of approximately 8,530~~8,100~~ housing units (expected to house approximately ~~15,700~~16,540 residents).

Footnote "a" in Table E.3-6 on page E.3-16 has been revised as follows:

a. The following calculations were completed: Jobs: $759,500 - \underline{1,920} - \underline{275} = \underline{757,580}~~759,775~~; Housing: $447,350 + \underline{8,530}~~100~~ = $455,880~~450~~; Jobs/Housing Ratio: $\underline{757,580}~~759,775~~/455,880~~450~~ = 1.67.$$$$

On page E.3-17, the second sentence of the second paragraph has been revised as follows:

However, from the perspective of the city's housing stock, the potential loss of housing units as a result of development under the Hub Plan would be offset by the potential production of up to approximately 8,530~~8,100~~ net new housing units within the Hub

Plan area, in addition to residential development elsewhere in San Francisco that has been occurring or is expected to occur in the future.

On page E.12-6, the second sentence of the first paragraph has been revised as follows:

In total, the Hub Plan, including the two individual development projects, would result in approximately 16,540~~15,700~~ new residents and a reduction of approximately 1,920~~275~~ new jobs compared to existing conditions.

On page E.13-27, the second sentence of the second paragraph has been revised as follows:

Development in the Hub Plan area, including the two individual development projects, could result in up to 8,530~~8,100~~ additional residential units in the vicinity.

On page E.13-31, the first sentence of the second paragraph has been revised as follows:

Development incentivized under the Hub Plan as well as the two individual development projects would generate approximately 11,169~~10,600~~ tons per year of solid waste that would necessitate disposal in a landfill.¹⁴⁵

Footnote 145 on page E.13-31 has been revised as follows:

Calculation: 3.7 pounds/resident/day x 16,540~~15,700~~ residents x 365 days/year = 22,337,270~~21,202,850~~ pounds/year; converted into tons = 11,169~~10,600~~ tons/year.

On page E.13-33, the first sentence has been revised as follows:

The Hub Plan and two individual development projects would accommodate new development in the Hub Plan area, which, in turn, would result in up to 8,530~~8,100~~ additional residential units.

The text on page E.14-6 has been revised as follows:

As discussed in the EIR project description, the Hub Plan and the two individual development projects, would incentivize new development that could generate approximately 16,540~~15,700~~ residents and a reduction of approximately 1,920~~275~~ new jobs over existing conditions.

The text in the last paragraph on page E.14-6 has been revised follows:

Operations under the Hub Plan, including the two individual development projects, could result new development that would result in approximately 16,540~~15,700~~ new residents in the city.

On page E.14-16, the fifth paragraph has been revised as follows:

As discussed in the EIR project description, the Hub Plan and the two individual development projects, would incentivize new development that could generate

approximately ~~15,700~~16,540 residents and the loss of approximately 1,920 ~~275 new~~ jobs over existing conditions

Table E.14-3~~2~~ identifies the number of school-aged children who would be generated by new development incentivized by the Hub Plan as a whole, including the two individual development projects, and the two individual projects individually.

On pages E.14-9 of Public Services, Table E.14-3 has been revised as follows:

TABLE E.14-3~~2~~. STUDENTS GENERATED BY THE HUB PLAN AND THE TWO INDIVIDUAL DEVELOPMENT PROJECTS

Type of Unit	Total Units	Student Generation Rate	Estimated Student Growth Due to Project
Hub Plan – Onsite Units, including 30 Van Ness Avenue and 98 Franklin Street			
Market-Rate Units	6,375 <u>6,075</u>	0.10	638 <u>608</u>
Below-Market-Rate ^a Units	2,125 <u>2,025</u>	0.25	532 <u>506</u>
		<i>Total</i>	<u>1,170</u> 1,144
30 Van Ness Avenue – Onsite Units			
Market-Rate Units	457	0.10	46
Below-Market-Rate Units	153	0.25	38
98 Franklin Street – Onsite Units			
Market-Rate Units	283	0.10	28
Below-Market-Rate Units	62	0.25	15

Source: Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, February 16, 2018, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed February 26, 2018.

^a. The number of below-market-rate units is based on the percentage of below-market-rate units for the 30 Van Ness Avenue Project (25 percent), which is the highest of the two development projects.

On page E.14-10, paragraph 1, second sentence of Public Services, the schools information has been revised as follows:

Overall, the Hub Plan, including for the two development projects, would add approximately 1,170~~1,144~~ students to the Hub Plan area.

On page E.14-10, paragraph 1, fifth sentence of Public Services, the schools information has been revised as follows:

The potential 1,170~~1,144~~ additional K–12 students that could result from subsequent development projects incentivized by the Hub Plan as well as the two individual development projects represent an direct incremental increase in the demand for school services ~~increase of approximately 1.9 percent in district enrollment compared with the 2016–2017 academic year.~~

ENVIRONMENTAL IMPACTS

DRAFT ENVIRONMENTAL IMPACT REPORT TOPICS

CULTURAL RESOURCES

The revised project and updated population and housing estimates would not add new or additional sites proposed for rezoning beyond those previously identified in the Draft EIR. The Draft EIR identified 170 Otis Street as a listed or eligible historical resource (p. 3.A-69). As such, the revised project would have the same historic architectural resource impacts as the proposed project (i.e., significant and unavoidable with mitigation). The change to residential development instead of office for the 170 Otis Street site would not alter any of the conclusions regarding historic architectural resource impacts at the project level or under cumulative conditions. Thus, cultural resources are not discussed further.

TRANSPORTATION AND CIRCULATION

The revised project and updated population and housing estimates would result in an increase in the number of residential units but a decrease in the number of jobs generated by the project, which would result in a net loss of jobs due to the Hub Plan. Previously, the 170 Otis Street site was evaluated as an update to the zoning map to better reflect the existing building's footprint; under the Draft EIR, this site would have been rezoned to allow for two more stories of office use on top of the existing office building. The revised project (as evaluated in this RTC), which proposes the replacement of all office uses on the site with residential units, would result in minor changes. The increase in the number of residential units and the elimination of office square footage would not be substantial enough to alter the trip generation calculation shown in the Draft EIR. The changes to the anticipated development at 170 Otis Street site would not alter any of the conclusions regarding construction or operational impacts, including under cumulative conditions. Thus, transportation issues related to project description changes are not discussed further.

NOISE AND VIBRATION

Construction and operation of a residential building at 170 Otis Street, as now proposed, fits within the analysis completed for the Hub Plan in the Draft EIR noise studies for both construction and operation. The Draft EIR notes that the "project developed under the Hub Plan would be expected to involve the use of construction equipment and generate construction noise in the Hub Plan area" (p. 3.C-30) and "would result in construction vibration. However, construction of subsequent development projects under the Hub Plan could involve the use of vibration-generating construction equipment, which could result in damage to structures or, if operated during nighttime hours, sleep disturbance" (p. 3.C-53). The 170 Otis Street site, now proposed for a residential tower, is a use consistent with the operational uses studied. Consistent with the Hub Plan project analyzed in the EIR, the site would very likely require

stationary equipment, such as backup generators, and introduce new uses and activities in the Hub Plan area, including sensitive uses such as residences. The changes to the anticipated development at 170 Otis Street site would not alter any of the conclusions regarding construction or operational impacts, including under cumulative conditions. Thus, noise and vibration issues related to project description changes are not discussed further.

AIR QUALITY

Construction and operation of a residential building instead of a commercial (office) building at 170 Otis Street, as now proposed, fits within the air quality analyses completed for the Hub Plan in the Draft EIR. The development now proposed at the 170 Otis Street site would be consistent with the types of projects studied in the Draft EIR and, therefore, would also be consistent with the Bay Area Air Quality Management District's 2017 Clean Air Plan control measures, would not hinder implementation of the 2017 Clean Air Plan, and would support the primary goals of the Hub Plan.

The Draft EIR found that development projects enabled by the Hub Plan could be large enough to exceed the screening criteria established by the air district and require quantitative analysis, the results of which may exceed the criteria air pollutant significance thresholds. Development of 170 Otis Street as a residential project would result in approximately 450 residential units. This number exceeds the screening criteria. However, this type of development is consistent with the analysis included in the Draft EIR. The Draft EIR identified mitigation measures to address potential impacts associated with projects exceeding the screening criteria. Mitigation Measures M-AQ-4a and M-AQ-4b would be applicable to the 170 Otis Street project, if the design exceeds the screening criteria.

As identified in the Draft EIR, the Hub Plan would allow for development of projects that would exceed the air district's screening criteria and could also exceed the significance thresholds for criteria air pollutants. The Draft EIR concluded that because of this, the air quality impacts of subsequent individual projects would be considered significant and that implementation of Mitigation Measures M-AQ-5a, M-AQ-5b, and M-AQ-5c would reduce this impact; however, the feasibility or effectiveness of these mitigation measures with respect to reducing criteria air pollutant emissions to levels below the significance thresholds is unknown at this time. Therefore, air quality impacts associated with subsequent development projects were concluded to be significant and unavoidable. Development of 170 Otis Street as a residential tower, instead of increasing the amount of office use on the site, would fit within the overall assumptions of development under the Hub Plan, and applicable mitigation would apply. The changes to the anticipated development at 170 Otis Street site would not alter any of the Draft EIR's conclusions regarding construction or operational impacts, including cumulative impacts. Thus, air quality issues related to project description changes are not discussed further.

WIND

Project description changes related to 170 Otis Street and updates to the population and housing estimates would not result in changes to the massing of the structure. Therefore, issues related to wind impacts are not discussed further.

SHADOW

Project description changes related to 170 Otis Street and updates to the population and housing estimates would not result in changes to the massing of the structure. Therefore, issues related to shadow impacts are not discussed further.

INITIAL STUDY TOPICS

Similar to the project description in the Draft EIR, the 170 Otis Street site would be rezoned to allow for a building consistent with the existing building's massing and allow for an additional 25 feet in height over the existing structure. The changes to the anticipated development at 170 Otis Street site would not alter any of the conclusions regarding construction or operational impacts, including cumulative impacts, for land use, aesthetics, tribal cultural resources, recreation, biological resources, geology and soils, hazards and hazardous materials, mineral resources, agriculture and forestry resources, or wildfire. Thus, issues related to those topics due to project description changes are not discussed further.

POPULATION AND HOUSING

As described in the initial study, generally, a project that induces population growth is not viewed as having a significant impact on the environment, unless the physical changes that would be needed to accommodate project-related population growth would have adverse impacts on the environment. Consistent with the analysis in the initial study, construction of the 170 Otis Street site would not induce substantial population growth related to construction because construction workers would most likely be drawn from the local and regional construction work force.

As stated in the initial study, population growth is considered in the context of local and regional plans as well as population, housing, and employment projections. The Hub Plan seeks to help shape and accommodate population growth within San Francisco, primarily by replacing zoning that currently restricts development at the 18 sites. In addition, the Hub Plan seeks to increase the space available for housing through changes to the planning code to allow the development of a taller, larger, and overall more diverse array of buildings and heights within the Hub Plan area. The subsequent development projects in the Hub Plan area that could be approved pursuant to the proposed zoning would accommodate the population and job growth already identified for San Francisco and projected to occur within city boundaries. Therefore, they would not induce substantial unplanned population growth. Construction of a residential building at the 170 Otis Street site and updates to the population and housing

estimates would be consistent with the analysis in the initial study. Therefore, there would be no impact related to housing or population displacement from a residential building replacing an existing office building at 170 Otis Street.

GREENHOUSE GAS EMISSIONS

Impacts related to greenhouse gas (GHG) emissions for the proposed construction of a residential building, instead of increasing the height of an office building, would be essentially the same as those described in the initial study and subject to and comply with GHG emissions reduction measures. Thus, the change to the project description and updates to the population and housing estimates would not alter the conclusion that GHG emissions impacts would be less than significant.

UTILITIES AND SERVICE SYSTEMS

The 170 Otis Street site is currently served by utilities and service systems and contains an approximately 115-foot-tall office building. The project description now proposes constructing up to a 150-foot-tall residential building at the site. As stated in the initial study, the estimate of future retail water demand citywide through 2040 is based on the population and employment growth projections contained in the department's Land Use Allocation 2012. The Hub Plan represents a portion of the planned growth accounted for in Land Use Allocation 2012. Therefore, the Hub Plan's demand is incorporated in the 2015 Urban Water Management Plan. Development of a residential project at 170 Otis Street would fit within the planned growth. Consistent with the findings of the initial study, water supplies would be available to meet the demand of the Hub Plan in combination with both existing development and projected growth in San Francisco through 2040 under each of these water supply scenarios, with varying levels of rationing during dry years.

Consistent with the initial study, the demand generated by the 170 Otis Street site with construction of a new residential building would not trigger the application of San Francisco's Non-potable Water Ordinance. Construction of a residential tower at 170 Otis Street would not result in the need for new or expanded water, wastewater, or stormwater drainage facilities; new or expanded water supply sources; or new or expanded solid waste infrastructure. The proposed project would not generate wastewater that would exceed service capacity or wastewater treatment requirements. As noted in the initial study, project level impacts on utilities and service systems and contributions to any significant cumulative impacts would be less than significant. As with the proposed project, construction and operational stormwater management requirements and best management practices would be implemented under the revised project. Thus, the impacts of the revised project on utilities and service systems would be substantially similar to those described in the initial study (i.e., less than significant). Similarly, contributions to any impacts on utilities and service systems would not be cumulatively considerable.

PUBLIC SERVICES

Revisions to the project description for the construction of 170 Otis Street as a residential building and various other updates to refine population, housing, and job projections would result in additional residents (approximately 840 new residents) and decrease the number of employees in the project area (approximately 2,195 jobs lost). Because the jobs at the existing office building at 170 Otis Street are associated with a City agency, it is assumed that the employees would be relocated elsewhere in San Francisco. However, this number is still reported as a loss.

An increase in the number of residents would result in an increase in the number of projected students. Revisions to the project description that would increase the total number of residential units, including a 15 percent increase to be consistent with the population assumptions in the EIR, would result in approximately 56 additional students.

As described in the initial study, the demand for police protection, fire protection, or school facilities generated by 170 Otis Street's new residents would be met by existing and planned capacity increases and would not result in the need for any new or expanded facilities. Thus, the revised project's impacts on public services would be substantially similar to those described in the initial study for the proposed project (i.e., less than significant). Similarly, contributions to any cumulative impacts on public services would not be cumulatively considerable.

HYDROLOGY AND WATER QUALITY

As described in the hydrology and water quality discussion in the initial study, the proposed project would have a less-than-significant impact on hydrology and water quality. The revised project at 170 Otis Street would be governed by the same permits, policies, and regulations described in the initial study for construction-related activities and for operations. In addition, the revised project would comply with the Stormwater Management Ordinance, as described in the initial study. Therefore, impacts under the revised project would be similar to those under the proposed project (i.e., less than significant). Similarly, contributions to any cumulative impacts on hydrology and water quality would not be cumulatively considerable.

ENERGY

With only a shift in land use type at 170 Otis Street (i.e., development of a residential building instead of an office building), the revised project would be expected to have substantially similar impacts on energy resources as the proposed project (i.e., less than significant). Similarly, contributions to any cumulative energy resources impacts would not be cumulatively considerable.

C. ENVIRONMENTAL EFFECTS OF REVISIONS TO THE PROJECT

CEQA Guidelines section 15088.5(a) requires recirculation of an EIR when “significant new information” is added to the EIR after publication of the draft EIR but before certification. CEQA Guidelines section 15088.5(a) states that information is not “significant” unless “the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project proponents have declined to implement.” Section 15088.5(a) further defines “significant new information” that triggers a requirement for recirculation to include, for example, disclosure of a new significant impact, a substantial increase in the severity of an impact (unless mitigation is adopted to reduce the impact to a less-than-significant level), or the identification of a new feasible alternative or mitigation measure that would be considerably different from others previously analyzed and would clearly lessen the environmental impacts of the proposed project, but the project sponsor declines to adopt it. CEQA Guidelines section 15088.5(b) states that recirculation is not required if “new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.” The current revisions and clarifications to the project description for the proposed project would not result in any new significant impacts that were not already identified in the Draft EIR, nor would these changes increase the severity of any of the proposed project’s impacts identified in the Draft EIR. Mitigation measures identified in the Draft EIR and the initial study would continue to be required to reduce or avoid the significant environmental impacts of the proposed project. No new or modified measures would be required to mitigate the significant impacts identified for the proposed project (as revised) in either the Draft EIR or the initial study. The analysis of environmental effects presented in this section reviews environmental topics from the Draft EIR and the initial study and considers the revisions and clarifications to the project description for the proposed project.

CONCLUSION

For these reasons, the proposed minor revisions and clarifications to the proposed project description in the Draft EIR described above do not present significant new information, as defined by CEQA Guidelines section 15088.5; therefore, recirculation of the Draft EIR is not required.

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3. LIST OF PERSONS COMMENTING

This chapter presents the agencies, organizations, and individuals who submitted written comments during the public review period or spoke at the public hearing on the Draft Environmental Impact Report (Draft EIR). Table 3-1 lists the commenters' names, along with the corresponding commenter codes used in Chapter 4, Responses to Comments, to denote each set of comments; the comment format; and the comment date. This responses-to-comments (RTC) document codes the comments in the following way:

- Comments from agencies are designated by "A-" and an acronym for the agency's name.
- Comments from organizations are designated by "O-" and an acronym for the organization's name.
- Comments from individuals are designated by "I-" and the commenter's last name.

Within each category, commenters are listed in alphabetical order. In cases where commenters provided oral testimony at the public hearing and submitted written comments, or submitted more than one letter or email, comment codes end with a sequential number. For example, comment codes Goodman(1) and Goodman(2) are used to denote multiple written and verbal comments submitted by the same organization or individual. Comment letters and emails received are included as Attachment A. The Planning Commission hearing transcript is included as Attachment B.

Table 3-1: Commenters on the Draft EIR

Commenter Code	Name of Person and Title	Agency/ Organization	Comment Format	Date
Federal, State, Regional, and Local Agencies, Boards, and Commissions				
A-Caltrans	Andrew Chan, Associate Transportation Planner	Caltrans	Email	9/9/2019
A-CHP	Cruz Correa, Administrative Sergeant	California Highway Patrol	Email	8/21/2019
A-HPC	Aaron Hyland, President	Historic Preservation Commission	Letter	08/20/2019
A-OPR	Scott Morgan	Office of Planning and Research	Letter	9/9/2019

Commenter Code	Name of Person and Title	Agency/ Organization	Comment Format	Date
Organizations				
O-CCCBD	Jim Haas, Board Member	Civic Center Community Benefits District	Transcript	8/29/2019
O-DHIC	Carolyn Kenady	Dolores Heights Improvement Club	Transcript	8/29/2019
O-FAIS	Melinda Bihn, Head of School	French American International School	Transcript	8/29/2019
O-HVNA	Jason Henderson, Chair of Transportation and Planning Committee	Hayes Valley Neighborhood Association	Letter	9/9/2019
O-IA	Randy Rollison, Executive Director	Intersection for the Arts	Transcript	8/29/2019
O-MEDA	Peter Papadopoulos	Mission Economic Developing Agency	Transcript	8/29/2019
O-NC	Ozzie Rohm	The Neighborhood Council, Land Use Coalition	Transcript	8/29/2019
O-SFBC	Darren Newell, Campaign Coordinator	San Francisco Bicycle Coalition	Transcript	8/29/2019
O-SFHAC	Corey Smith	San Francisco Housing Action Coalition	Transcript	8/29/2019
O-SOMCAN	Angelica Cabande, Organizational Director; Joseph Smooke, Board Chair	South of Market Community Action Network	Letter	9/6/2019
O-SPUR	Kirsty Wang, Community Planning Policy Director	SPUR	Letter	8/29/2019
O-TNDC	Alexandra Goldman, Senior Community Organizing and Planning Manager	Tenderloin Neighborhood Development Corporation	Letter	9/6/2019
O-YBNC	John Elberling, Manager	The Yerba Buena Neighborhood Consortium	Letter	8/29/2019

Commenter Code	Name of Person and Title	Agency/ Organization	Comment Format	Date
Individuals				
I-Bowermaster	Dan Bowermaster	Individual	Email	8/15/2019
I-Goodman(1)	Aaron Goodman	Individual	Email	8/27/2019
I-Goodman(2)	Aaron Goodman	Individual	Email	9/3/2019
I-Henderson	Jason Henderson	Individual	Transcript	8/29/2019
I-Hestor(1)	Sue C. Hestor	Individual	Transcript	8/29/2019
I-Hestor(2)	Sue C. Hestor	Individual	Letter	9/9/2019
I-Miles	Mary Miles	Individual	Email	7/26/2019
I-Phillips	Marvis Phillips	Individual	Email	7/25/2019
I-Scocchera	Richard Scocchera	Individual	Email	7/30/2019
I-Walbourn	Tess Walbourn	Individual	Transcript	8/29/2019
I-Warshaw	Jim Warshaw	Individual	Transcript	8/29/2019

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4. COMMENTS AND RESPONSES

This chapter of the responses-to-comments (RTC) document summarizes the substantive environmental comments received on the Draft Environmental Impact Report (Draft EIR) and presents responses to those comments. The chapter begins with a description of the overall organization of the RTC, followed by the comments and responses.

A. ORGANIZATION OF RESPONSES TO COMMENTS

The comments in this chapter are organized by environmental topic area and presented in the same order as in the initial study checklist. General comments not related to substantive environmental issues, including comments pertaining to the proposed project's merits, are addressed in the concluding section of this chapter, the General Comments section. Prefixes representing the abbreviated environmental topic areas are used to group responses, as shown below.

PD	Project Description	WI	Wind
PH	Population and Housing	SH	Shadow
CUL	Cultural Resources	AL	Alternatives
TR	Transportation and Circulation	GC	General Comments
AQ	Air Quality		

Each comment is presented verbatim, except for minor typographical corrections, and concludes with the commenter's name and, if applicable, title and affiliation; the comment source (i.e., public hearing transcript or letter); the comment date; and the comment code. For the full text of each comment in the context of the public hearing transcript or each comment letter, the reader is referred to RTC Attachments A and B.

Following each comment or group of comments, a comprehensive response is provided to address issues raised in the comments and clarify or augment information in the Draft EIR, as appropriate. The responses clarify the Draft EIR text and may also include revisions or additions to the Draft EIR. Revisions to the Draft EIR are shown as indented text, with new text underlined and deleted material shown with ~~striketrough~~. Corrections and/or clarifications to the Draft EIR presented in the responses are repeated in Chapter 5, Draft EIR Revisions.

B. PROJECT DESCRIPTION

The comments and corresponding responses in this section cover topics in Chapter 2, Project Description, of the Draft EIR. These include topics related to:

- PD-1: Build-Out Assumptions
- PD-2: Housing Sustainability District
- PD-3: Proposed Heights

COMMENT PD-1: BUILD-OUT ASSUMPTIONS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-9
- O-SOMCAN-25
- O-MEDA-5

“Number of residential units possible under the plan unstable, inconsistent, and not fully understood or studied in the report.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-9]*)

“The San Francisco Planning Department has publicly presented and stated that a significantly higher number of residential units can be built under the proposed rezoning than has been studied in the report. On March 8th, 2017 the Planning Department presented in a public workshop that the Hub rezoning would result in 9,050 new residential units.¹ On April 4th, 2018, the Planning Department presented to San Francisco Bay Area Planning and Urban Research Association (SPUR) that the Hub rezoning would result in 12,000 new residential units.² On June 11th, 2019, the Planning Department presented in a public workshop that the Hub rezoning would result in 9,710 new residential units.³ On July 11th, 2019, the Planning Department presented to the San Francisco Planning Commission that the Hub rezoning would result in 7,300-9,000 new residential units. On August 15th, 2019 the Planning Department responded to an email inquiry from SOMCAN stating that “The Hub Plan amendment

¹ http://default.sfplanning.org/plans-and-programs/in-your-neighborhood/hub/Hub_presentation_Workshop3_Final_Web.pdf

² <https://citypln-mextrnl.sfgov.org/SharedLinks.aspx?accesskey=51f9c1c9ae48dc86623a7a0dba13ffd510e14a544d0e5fe5f50aace58a07aeb8&VaultGUID=A4A7DACD-B0DC-4322-BD29-F6F07103C6E0>

³ http://default.sfplanning.org/plans-and-programs/in-your-neighborhood/hub/workshop04_boards.pdf

proposes to increase heights on 18 parcels. This increase could add an additional 1700 units. We anticipate that the existing zoning would allow for about 8000 units. We anticipate the proposed zoning (increased heights on 18 parcels) would allow for about 9700 units” (see Attachment A). These public workshops, public hearings, and email communication show a significantly higher number of new residential units that would come from the proposed rezoning than is studied in the report. The most recent e-mail communication shows that there is the ability for up to 9,700 new residential units under the proposed rezoning in the Hub Plan amendment. On August 16th, 2019 SOMCAN inquired to the Planning Department via email whether or not the 9,700 new residential units that would be allowed under the Hub Plan amendment accounted for the use of any density bonuses allowed by the state, “The 9,700 residential units allowed as determined by the Planning Department DOES NOT include the use of the state density bonus (i.e. this number would be higher if density bonus is used), correct?” (see Attachment A). In response to this email, on August 16th, 2019 the Planning Department responded to SOMCAN’s email stating, “Yes, this number does not include the possibility for State Density bonus” (see Attachment A). The numbers for new residential housing units is unstable and continues to fluctuate, and as this is the basis for the plan, the whole plan itself continues to fluctuate and has been inconsistent and misleading.

The report states that “This proposed zoning would allow increases in heights for 18 sites. If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,100 new residential units (approximately 15,700 new residents). This estimate also assumes a 15 percent increase in the number of units to account for potential density bonuses allowed by either state or local regulations” (page S-2).

This shows a direct discrepancy between the max number of new residential units that would be allowed under the rezoning and the max number of new residential units that is studied in the DEIR report. Further adding to the size of this discrepancy is the fact that the Planning Department estimates for new residential units does not take into account the use of density bonus, while the DEIR report does take this into account.

This shows that in the DEIR report the number of residential units possible under the plan is unstable, inconsistent, and not fully understood or studied. This is a critical flaw of the report.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-25]*)

“Yeah. So I want to go to just one more while I have the time. State density bonus is only allotted, as we heard, for about 15 percent increase, but I think I’d like to see the data from the Planning Department integrated. I think we’re seeing much higher-level numbers to be reflected in the report.” (*Mission Economic Development Agency, August 29, 2019, [O-MEDA-5]*)

RESPONSE PD-1

The comments state that the number of residential units anticipated under the Hub Plan is unstable, inconsistent, and not fully understood, including how the state density bonus is incorporated. The number of residential units proposed under the Hub Plan has evolved over time and changed, based on refinements to the methodology for determining future growth. In addition, the methodology that the Environmental Planning Division of the San Francisco Planning Department (department) used to calculate the number of anticipated residential units under the Hub Plan is slightly different from the methodology that the Citywide Division of the department used, which also accounts for the differences in projections.

Population, housing, and job projections, as well as the methodology used to generate those projections, were outlined in a memorandum prepared for the Draft EIR.⁴ Since publication of the Draft EIR, this memorandum was updated to reflect revisions to those numbers and clarify how those projections were derived.⁵

There are two key differences between the projections used for the Draft EIR and those used by the department's Citywide Division for long-term planning purposes. First, the Draft EIR applied more conservative methodology to estimate future growth by defining the proposed project as the difference between what currently exists within the plan area (on the 18 sites proposed for height and bulk increases) and what could be developed on those sites under the Hub Plan if all sites were to be built to maximum development potential. In contrast, for long-term planning purposes, the department's Citywide Division focused on the difference between what could be constructed on the 18 sites if those sites were to be built to maximum *existing* development limits (i.e., current zoning) and what could be developed on those sites under the Hub Plan if all sites were to be built to maximum development potential. Moreover, with regard to the state density bonus, the Draft EIR included a 15 percent buffer in the calculations for the anticipated number of residential units in the Hub Plan area, while the Citywide Division did not include this estimate. This residential buffer above the initial housing projection number was conservatively included for CEQA analysis to allow for other potential growth within the plan area that could occur, such as projects taking advantage of HOME SF⁶ and other density bonus programs.

As noted above and discussed in more detail in the revised population projections memorandum, there have also been refinements to the original projections since publication of the Draft EIR. The biggest difference between the original and revised projections is attributable

⁴ San Francisco Planning Department, *Hub Plan Population Estimates and Methodology*, July 2019.

⁵ San Francisco Planning Department, *Market and Octavia Plan Amendment (Hub Plan) Updated Population Estimates and Methodology*, January 2020.

⁶ HOME-SF is an optional program for developers constructing mixed-income in certain areas of San Francisco and for which density bonuses and zoning modifications are provided based on affordability of the residential units. Information about the program is available at: <https://sf-planning.org/home-sf>.

to the proposed changes at the 170 Otis Street site, which assume approximately 450 housing units on this site rather than the addition of two floors of office space to the existing office building, as assumed for this site in the Draft EIR. In addition, minor adjustments were made to many of the other 18 sites proposed for height and bulk increases in the Draft EIR. These minor adjustments were based on closer examination of the types and sizes of developments that those sites would accommodate in the future. The updated population estimates, as well as the underlying methodology the estimates were based on, are discussed in more detail in the population projections memorandum as well as Chapter 2 of this RTC document.

The impacts disclosed in the Draft EIR account for the possibility of the state density bonus being applied to future projects. The San Francisco Planning Department (department) determined that the additional growth that could result from use of state or local affordable housing density bonus programs would be within the 15 percent buffer that the department added to the growth projections in the Draft EIR. The number of residential units is an estimate that the department uses to analyze and disclose the potential impacts of the project. The number of units is not presented as the maximum number of units that could be built but, rather, as a reasonable estimate.

No additional analysis or change to the Draft EIR conclusions regarding build-out assumptions is required; therefore, recirculation of the project description section of the EIR is not required. The concerns raised in these comments will be transmitted to City and County of San Francisco (City) decision makers for their consideration during the proposed project's approval process.

COMMENT PD-2: HOUSING SUSTAINABILITY DISTRICT

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-12
- O-SOMCAN-28

"Use of the Housing Sustainability District by Individual Projects Must Trigger a New, Complete, and Separate EIR Analysis-" (South of Market Community Action Network, September 6, 2019, [O-SOMCAN-12])

"The report discusses the Housing Sustainability District stating, "The EIR evaluates the designation of portions or all of the Hub Plan area as an HSD...Designation of an HSD...would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD" (page 2-7). The scale of new development proposed by the plan is so large in scope and is already being granted a

streamlining of development through the process of a program-level EIR under the rubric of an area plan, that any additional large-scale streamlining of an entire area through the designation of a Housing Sustainability District makes the area plan program-level EIR inadequate and incomplete. There must be a separate and complete project-level EIR (separate and independent of this EIR) analysis required for any development that takes advantage of the Housing Sustainability District. By layering an additional blanket of streamlining via the HSD on top of an existing area plan (which is already an instrument of streamlining) without additional study obscures the intention of a program-level EIR for area plans." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-28]*)

RESPONSE PD-2

The comment states that a separate project-level EIR should be prepared to evaluate the impacts of the Hub Housing Sustainability District (HSD). Assembly Bill 73 requires local agencies to prepare an EIR to identify and mitigate, to the extent feasible, the environmental impacts of designating an HSD. Furthermore, residential and mixed-use developments approved under the Hub HSD must implement the applicable mitigation measures identified in this EIR. The proposed Hub HSD does not change any height, bulk, land use, or density standards proposed in the Hub Plan. Projects seeking approval under the Hub HSD must demonstrate compliance with all applicable zoning and design review standards and implement any mitigation measures identified in the Draft EIR that the department determines to be applicable to the project. Regarding the commenter's statement that any development proposal that comes forward under the HSD should undergo project-level California Environmental Quality Act (CEQA) review, one of the primary features and purposes of the HSD program is the ability to allow ministerial approval for projects meeting certain requirements. Any project, however, that does not comply with the requirements of the HSD (outlined on page 2-89 through 2-90 of the Project Description and in Government Code sections 66202 to 66210 and Public Resources Code sections 21155.10 and 21155.11) is required to undergo the normal process of CEQA review and may be subject to discretionary approvals.

The Draft EIR analyzes creation of the Hub HSD. It states that the Hub HSD would not result in impacts beyond those identified for the Hub Plan. This is because the proposed Hub HSD would not change any height, bulk, land use, or density standards proposed in the Hub Plan. Therefore, any future project proposed under the Hub HSD would not result in impacts that would be more severe than those impacts already identified in the Draft EIR for the Hub Plan. In addition, because specific details about future projects that could be approved under the Hub HSD are not known at this time, it is not possible to prepare a project-level EIR for an HSD.

No additional analysis or change to the Draft EIR conclusions regarding the Hub HSD is required; therefore, recirculation of the project description section of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT PD-3: PROPOSED HEIGHTS

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- I-Warshaw-4

"10 South Van Ness is proposing 600 feet. The only group project is 400 feet. 1 Oak is looking to go up to 600 feet. 30 Van Ness is 500 feet. We have a new tower being built just south of Van Ness, and it's 400 feet. We see how big 400 feet really is. 600 feet is 50 percent higher than that. It looks like all four corners are going to be 600-foot towers. That's mammoth. That's, also, back to one big blob of everything the same height. So that's something that really concerns me a great deal." (*Jim Warshaw, August 29, 2019, [I-Warshaw-4]*)

RESPONSE PD-3

The comment summarizes the proposed heights for the various buildings in the Hub Plan area around the Market Street and Van Ness Avenue intersection and expresses concern about the heights. The Hub Plan proposes increased heights in the area, particularly around the Market Street and Van Ness Avenue intersection. The Hub Plan evaluated a height of 450 feet for 1500–1540 Market Street, which is commonly called "One Oak," in reference to a previously entitled project (Case No. 2009.0159E) that would construct a 400-foot-tall building at the site. The commenter is incorrect in stating that "One Oak" would go up to 600 feet. Further, not all heights would be same at this intersection. The maximum permitted heights at the intersection of Market Street and Van Ness Avenue would be 450 feet (1500–1540 Mission Street), 520 feet (30 Van Ness Avenue), 590 feet (10 South Van Ness Avenue), and 650 feet (1 South Van Ness Avenue) on each corner. This would avoid uniform heights and provide more visual interest for the area.

No additional analysis or change to the Draft EIR conclusions regarding proposed heights is required; therefore, recirculation of the project description section of the EIR is not required. The concerns raised in the comment will be transmitted to City decision makers for their consideration during the proposed project's approval process.

C. POPULATION AND HOUSING

The comments and corresponding responses in this section cover topics in initial study Section 3.E, Population and Housing (Draft EIR Appendix B). These include topics related to:

- PH-1: Displacement
- PH-2: Short-Term Rentals
- PH-3: Employment

COMMENT PH-1: DISPLACEMENT

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-8
- O-SOMCAN-24
- O-MEDA-3
- I-Walbourn-3

“Impact of displacement not studied.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-8]*)

“There are environmental impacts due to displacement of residents from their homes or small businesses in SoMa, especially when considering the huge increase in VMT that will result from the plan that are not studied in the report.

The plan encourages luxury, high end housing in SoMa, which in turn encourages the price of other housing to increase. Landlords of adjacent properties begin to charge more rent to cash in on the new populations in the nearby luxury condos or new high-end shops. The plan upzones a large swath of land. Upzoning of property increases the values of the underlying land, which leads to increased costs for residential and commercial tenancies and increased sale prices. Therefore existing residents or small businesses that are paying less than the new market rate will be forced out. Upzoning incentivizes tearing down existing housing and existing small businesses so that developers can maximize the new build-out potential of that property. Coupled with the relaxing of local controls and push to have less local approval hearings, there will be less incentive for developers to provide “right to return” or provide increased levels of affordability to existing residents or businesses that will be forced out when the buildings are torn down. There are no new protections being implemented by the plan for existing tenants against displacement or evictions.

Large-scale displacement creates a significant environmental impact when considering CEQA's "Vehicle Miles Travelled" standard. Working class and lower income households get displaced outside San Francisco and their commutes increase, increasing their VMT. When people who work in SoMa are displaced, they will often retain their employment in SoMa, therefore their VMT will increase. Many existing residents in SoMa can not afford the luxury homes that are and will be built in SoMa and access to affordable housing is extremely limited, so if for any reason they need to move out, it's highly unlikely they will move be able to stay in the neighborhood.

Furthermore, much of the luxury housing that gets built doesn't provide housing even though it's approved by Planning to be residential housing units. When these units are used as "pied-a-terres" or "short term rentals" or "corporate rentals," they are not helping to alleviate any housing shortage, because although they are approved by Planning as residential use, they are not in fact used for residential purposes. Therefore people are being displaced and commuting farther for work, meanwhile the new housing units aren't necessarily supporting residents being able to live in homes close to their work.

Replacing low income residents with higher income residents replaces a population with lower car ownership with a population that has a higher rate of car ownership, and more affluent people are also more likely to use TNC services (discussed earlier above). There are also tech shuttles that service SoMa residents to take them to their offices on the Peninsula. The impacts of the increased VMT caused by the new, more affluent populations which is encouraged in the plan is not considered in the report. None of the above impacts in regards to gentrification and displacement are studied in the report." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-24]*)

"We had an evaluation, also, that it says we will not exist -- displace any existing residents, but we do think that the creation of this housing study is starting to show what may -- the study, which is preliminary printage coming out any day now -- supposedly by late summer -- shows that we should expect a 2-to-17 percent increase of the low-cost rental units surrounding these new housing units, and we'd like to see an evaluation of what level of displacement on those existing residents we might see, particularly because they center around valuation -- there is a sizable amount of our population, along with, of course, a favorable size of homeless population in this area." (*Mission Economic Developing Agency, August 29, 2019, [O-MEDA-3]*)

"I'd, also, like to point out that there's 7 concerns about affordable housing. There's some 3,500 units there now, and demolition of those units -- are they sound units? We would want not to loses those units." (*Tess Walbourn, August 29, 2019, [I-Walbourn-3]*)

RESPONSE PH-1

The comments are concerned about upzoning leading to the demolition of residential units and displacement of residents and small businesses if buildings are replaced with luxury high-end housing. One commenter states that this displacement will lead to an increase in vehicle miles traveled (VMT) and that new residential units may not be used for traditional housing. Please see Response TR-2 for a discussion of VMT and Response PH-2 for a discussion of short-term rentals. This response will address displacement only.

Impact PH-3 in Section E.3, Population and Housing, of the initial study addresses potential issues concerning displacement from housing units. It states that subsequent development projects approved under the Hub Plan could require the demolition of housing units within the Hub Plan area. Currently, the 18 sites evaluated for increasing maximum building heights under the Hub Plan do not contain residential units. Therefore, as there is no existing housing at the 18 sites proposed for increased heights, no displacement of existing residential tenants would occur.

However, with respect to the city's housing stock, the potential indirect loss of housing units as a result of development under the Hub Plan would be offset by the potential construction of up to approximately 8,530 net new housing units within the Hub Plan area, in addition to the residential development elsewhere in San Francisco that has been occurring or is expected to occur in the future. Furthermore, project sponsors associated with subsequent development projects in the Hub Plan area would be required to provide either onsite or offsite affordable residential units or pay fees under the Jobs/Housing Linkage Program and Inclusionary Affordable Housing Program (Planning Code section 415), ensuring that affordable housing units would be provided either onsite or offsite. The Hub Plan is designed to promote density within the Hub Plan area. The 18 sites proposed for upzoning under the Hub Plan do not include any existing residential units and, therefore, would not result in any direct displacement. All future projects in the Hub Plan area would be required to adhere to the appropriate eviction requirements (San Francisco Rent Ordinance section 37.9). Furthermore, adherence to Planning Code section 317, which requires Planning Commission review of residential structures that are lost through demolition, would ensure that the city's housing stock would be conserved and maintained. In addition, the department has initiated the Community Stabilization Initiative, a multi-agency effort to address the impacts of ongoing displacement and help vulnerable populations in the city. The initiative focuses primarily on the City's work to protect tenants, preserve housing, and protect and strengthen the businesses and cultural organizations that contribute to the city. The comprehensive Policy and Program Inventory includes an assessment of the City's tenant protections as well as housing stabilization, housing production and preservation, cultural stabilization, and economic development efforts. Policy and program assessment summaries include ideas for future consideration that have the potential to increase community stability.

The socioeconomic issues discussed in the comments do not relate directly to the physical environmental effects of the proposed project. Pursuant to CEQA Guidelines section 15064,⁷ Determining the Significance of the Environmental Effects Caused by a Project, an EIR shall focus on direct or foreseeable indirect physical changes to the environment that could result from a proposed project. Significant impacts on the environment are those that result in a substantial or potentially substantial adverse change in physical conditions, including those related to land, air, water, minerals, flora, fauna, ambient noise, and sites of historic significance. Potential physical environmental effects resulting from the Hub Plan are described in the initial study, the Draft EIR, and in this RTC document. Economic and social changes resulting from a project shall not be treated as significant effects on the environment (CEQA Guidelines section 15064[e]). Because socioeconomic changes are outside of the scope of CEQA, the EIR does not provide an analysis of socioeconomic issues. However, a social or economic change related to a physical environmental change may be considered in determining whether the physical change is significant.

Displacement of businesses is not a topic that is required for discussion under CEQA since it largely related to economic concerns. However, it is anticipated that impacts would be similar to those from the displacement of housing units in that subsequent development projects approved under the Hub Plan could require the demolition of buildings that contain small businesses. Some of the new development allowed under the Hub Plan would contain new commercial space, which would replace the lost commercial space.

Regarding the concern about rising rental prices, housing prices, and prices for goods, this is a socioeconomic topic; the discussion of such is not required under CEQA. Social and economic effects are relevant under CEQA only if they result in or are caused by an adverse physical impact on the environment. Rising rental prices, housing prices, and prices for goods would not result in or be caused by an adverse physical impact on the environment because they would not result in foreseeable physical changes.

In response to comments regarding extended commutes, the Hub Plan would locate residential uses in proximity to employment centers and neighborhood services that would be accessible by foot, bicycle, San Francisco Municipal Railway (Muni), and Bay Area Rapid Transit (BART) options. The Hub Plan would locate residential uses in the vicinity of major employment centers in downtown San Francisco. Locations in proximity to services and jobs would reduce the need for residents to make extended commutes. Furthermore, locations in proximity to transit would reduce the need to travel by vehicle to or from the project site. The Hub Plan would not worsen regional VMT because it would locate residents in both market-rate and affordable units close to employment centers in San Francisco.

⁷ The CEQA Guidelines are available online at http://www.califaep.org/images/ceqa/statute-guidelines/CEQA_Handbook_2016_122915.pdf.

No additional analysis or change to the Draft EIR conclusions regarding displacement is required; therefore, recirculation of the population and housing section of the initial study is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT PH-2: SHORT-TERM RENTALS

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-10
- O-SOMCAN-26

“Trend of residential housing not used as traditional housing not studied.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-10]*)

“The trend of residential housing not being used as traditional housing is not studied in the report. It is environmentally important to ask the question, who are we building new housing for? In regards to housing, without adequate controls and enforcement in place:

- New condos will be affordable only as high end luxury housing or sitting vacant because they are owned by investors who have no intention of living in these units;
- New condos will be used as commercial “short term rentals” instead of as residential use; and
- New condos will be used as “corporate rentals” instead of as residential use.

The inadequacy of the DEIR is that it studies the impacts of residential development as though it will be used for residences. The environmental impacts of corporate rentals, short term rentals and other commercial uses are different from residential uses. Without sufficient controls and enforcement, there is no way to ensure that new housing that is incentivized to be built under this new land use plan will be used as housing.

Based on trends with recent high-rise residential towers like the Millennium Tower and the Avery, the upper floors of these high-rise towers are built as massive luxury condos in order to capture the highest end of the market. These units get occupied at a very slow pace - so slow that they have no impact except to stay vacant until some of the wealthiest buyers decide to invest in them. This must be studied in the report.

The use of housing for non-traditional uses has ramifications for the population projections in the report. If units are master leased for short term rentals, the turnover is intense. The use of these units as corporate rentals and tourist rentals under a master leasing arrangement gets

around the current short term rental restrictions. New services such as Podshare create more intense uses and transient occupancies which change the projections for intensity of population increase.⁸ Though the sizable impact and reality of short-term rentals exists in San Francisco, this trend is not studied at all in the report.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-26]*)

RESPONSE PH-2

The comments state that the trend of residential development being used for short-term rentals is not studied in the Draft EIR. The trend the commenter describes is beyond the scope of this EIR and claims regarding future use of residential units for short-term rentals are unsubstantiated. Leasing private property for the purpose of short-term rentals is subject to City regulations administered by the San Francisco Office of Short-Term Rentals, pursuant to Administrative Code Chapter 41A. The San Francisco Office of Short-Term Rentals regulates the operation of short-term rentals with the goal of ensuring that short-term rentals do not negatively affect the City’s housing supply. The commenter also provides no evidence that short-term rentals result in greater physical environmental impacts than fully occupied units.

In addition, short-term rentals are largely a socioeconomic topic, the discussion of such is not required under CEQA. Social and economic effects are relevant under CEQA only if they result in or are caused by an adverse physical impact on the environment. Increases in short-term or corporate rentals would not result in or be caused by an adverse physical impact on the environment because rental arrangements do not directly result in increased density, population, or other effects that could result in physical environmental impacts. Regarding the comments on affordability, qualifying subsequent projects approved under the Hub Plan would be required to participate in the City’s inclusionary affordable housing program, which requires either onsite or offsite affordable units or a payment by developers of the affordable housing fee. Implementation of the City’s regulations on affordable housing contributes to the maintenance of affordable housing units in the City.

The Draft EIR population projections must assume that all residential units allowed would be used as residential units in one form or another to calculate an accurate estimation of population projections and describe project impacts. In addition, if units were left vacant, as the commenter states, the environmental impact associated with occupancy of those units would be lessened.

No additional analysis or change to the Draft EIR conclusions regarding short-term rentals is required; therefore, recirculation of the population and housing section of the initial study is not

⁸ See <http://podshare.com/>.

required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT PH-3: EMPLOYMENT

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-11
- O-SOMCAN-27
- O-MEDA-2

"Impacts of new jobs not adequately studied." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-11]*)

"The impact of new jobs created by the plan are not adequately studied in the report. New jobs created by the plan are barely discussed in the report, but there is a mention in the section on "Other CEQA Considerations," specifically under "Growth Inducement" impacts. The report states, "The Hub Plan could also result in up to approximately 275 new jobs. Although the number of jobs anticipated as a result of 30 Van Ness Avenue and 98 Franklin Street projects (1,524) surpasses the total number of jobs for the entire Hub Plan area (275), it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net increase of approximately 275 jobs area-wide" (page 4-7).

The report does not take into account what types of jobs currently exist based on the existing zoning and what types of jobs they could be replaced by. As new commercial space and development will seek higher rents, the socioeconomic make-up of these new workers and employees could very well be higher income. If new workers under the plan are of a higher income than the existing workers, this will have material changes on the traffic patterns (use of private automobiles, TNCs) and therefore environmental impacts. This is not studied in the report." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-27]*)

"I think to look at the a few of the particulars here, I wanted to point out that I do have some concerns. Again, I see, for example, that job numbers -- it seems like 30 Van Ness, we have here 240 square feet resulting in 1,460 employees -- 240 square feet per employee. As we were presented before -- and I'm not sure, kind of, how we are stuck on these high, high numbers -- pretty standard numbers from what we know as Mission Economic Development is about 60

percent of that or about 151 square foot per employee. That's pretty easily findable on the web. You can Google it right now, and there are studies that show it's significantly less, as well as some of the charts, slightly higher. But we take that as a very reasonable average, especially in San Francisco where, as we know, it's not uncommon to walk in and see people sitting at picnic tables everywhere and the numbers are much, much denser. So we'd like to see that corrected throughout the jobs numbers, because we do think jobs are a significant part of this." (*Mission Economic Developing Agency, August 29, 2019, [O-MEDA-2]*)

RESPONSE PH-3

Two comments state that the impact of new jobs is not adequately studied in the Draft EIR. The types of jobs that would be created and the corresponding impact those jobs may have are socioeconomic impacts; the discussion of such is not required under CEQA. Social and economic effects are relevant under CEQA only if they result in or are caused by an adverse physical impact on the environment. New jobs would not result in or be caused by an adverse physical impact on the environment. Please see Response TR-3 for a discussion of VMT and transportation network companies (TNCs).

In addition, one comment states that the generation rate used to determine the number of jobs that would be generated per square foot of office space is too high. The generation rate of 240 square feet per employee is the standard factor used by the department for office use. The department's Citywide Division formulated this generation rate in the 1990s to estimate land supply and the demand for different types of land uses and buildings as the basis for land use monitoring, forecasting, and policy analysis and development. In 2018, the department lowered the generation rate from 276 to 240 square feet per employee to reflect a recent trend toward densification for office space use.⁹ This generation rate represents an acceptable and accurate rate for office space in San Francisco and is based on substantial evidence.

No additional analysis or change to the Draft EIR conclusions regarding employment is required; therefore, recirculation of the population and housing section of the initial study is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

⁹ Keyser Marston Associates, Inc., *Office Employment Density Estimate, San Francisco, CA*, May 2017.

D. CULTURAL RESOURCES

The comments and corresponding responses in this section cover topics in Section 3.A, Cultural Resources, of the Draft EIR. These include topics related to:

- CUL-1: Community-Generated Landmark District

COMMENT CUL-1: COMMUNITY-GENERATED LANDMARK DISTRICT

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- A-HPC-4

“Commission President Hyland requested information about a community-generated application for a Landmark District at the southeast end of the Plan Area that did not appear on any of the DEIR’s Historic Resource maps. [Staff note: The Woodward Street Romeo Flats Reconstruction Historic District is located outside of the Plan Area in this general vicinity and is included in the Planning Department’s Landmark Designation Work Program for future consideration as an Article 10 Landmark District. This will be addressed in the Response to Comments.]” (*Historic Preservation Commission, August 20, 2019, [A-HPC-4]*)

RESPONSE CUL-1

The comment requests information about a community-generated application for a Landmark District at the southeast end of the Hub Plan area that did not appear on any of the Draft EIR’s historic resource maps.

The district in question, the Woodward Street Romeo Flats Reconstruction Historic District, is adjacent to the Hub Plan area boundaries. This district was first documented by the department in April 2011 as part of the Inner Mission North Historic Resources Survey, which found the district eligible for the California Register of Historical Resources under criteria 1 and 3. Subsequently, in 2014, residents of Woodward Street began the process of applying for formal designation as a landmark district under article 10 of the San Francisco Planning Code. The article 10 designation of the Woodward Street Landmark District, which is coterminous with and California register-eligible district, is currently considered an “active project” in the department’s Landmark Designation Work Program, meaning that the department or consultants are actively working on the application and the project is expected to be among the next landmark designations in the queue. This district was omitted from the Draft EIR in error. Accordingly, the Draft EIR has been revised to include the Woodward Street Romeo Flats

Reconstruction Historic District in the relevant sections of Chapter 3.A, Cultural Resources. First, the fourth sentence of the first paragraph on Draft EIR p. 3.A-3 is revised as follows:

~~One~~Two historic districts that ~~is~~are adjacent to the boundaries of the Hub Plan area, the Elgin Park-Pearl Street Reconstruction Historic District and the Woodward Street Romeo Flats Reconstruction Historic District, does not overlap with the CEQA study area but ~~is~~are analyzed for impacts in this section because the potential exists for ~~its~~their settings to be altered.

Similarly, the following revisions have been made and bulleted text added under the “Historic Districts in the CEQA Study Area” heading on p. 3.A-31:

The following additional historic districts ~~is~~are adjacent to the CEQA study area and, as such, also ~~has~~have the potential to sustain ~~an~~ indirect impacts on ~~its~~their settings as a result of program- and project-level activities:

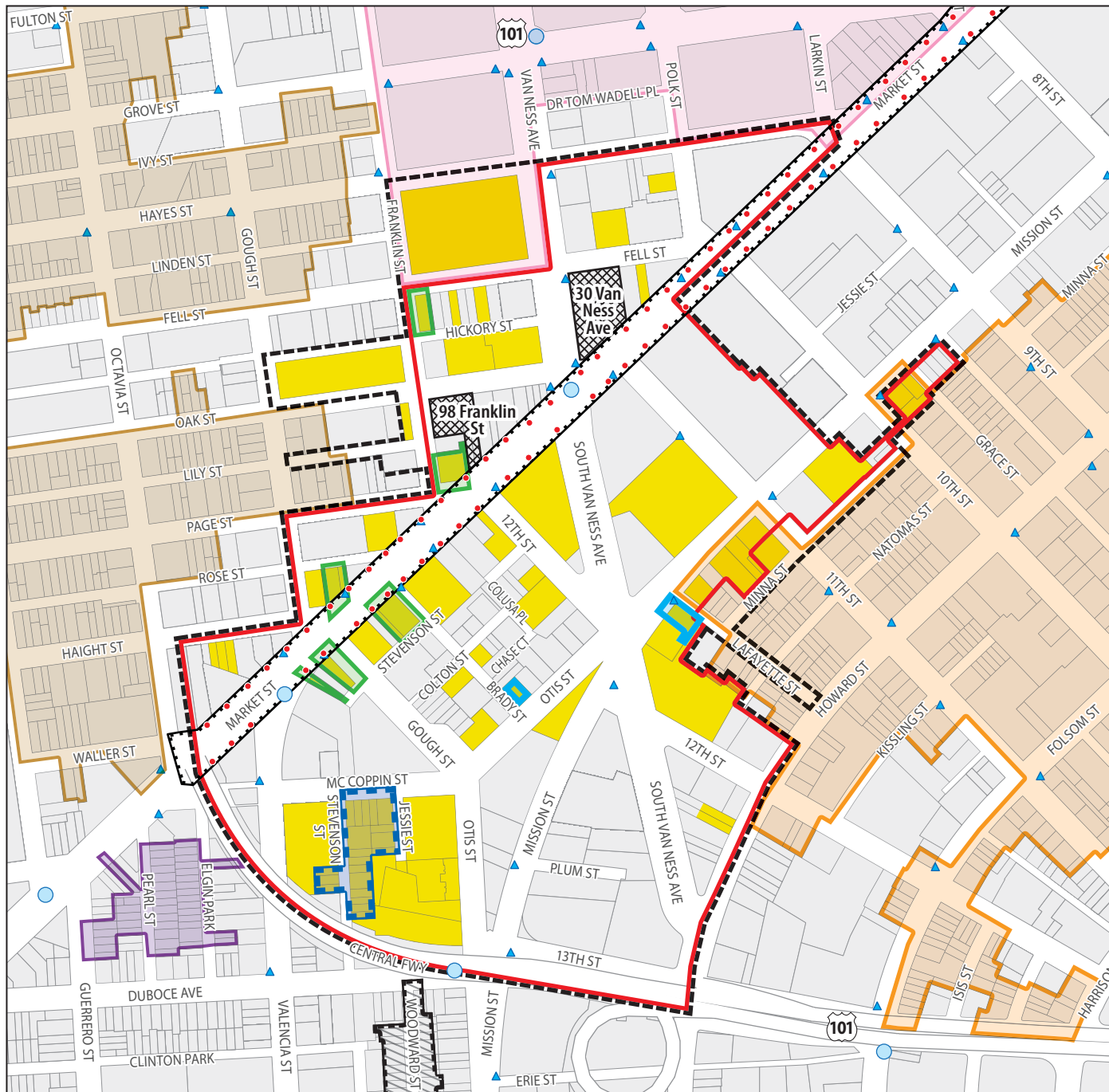
- Elgin Park-Pearl Street Reconstruction Historic District:** The Elgin Park-Pearl Street Reconstruction Historic District was found eligible for listing in the California register in the Market and Octavia Survey under Criterion 1. The district is a concentration of two- to three-story residential flats buildings primarily located south of Market Street between Pearl Street and Elgin Park; the district boundary extends east to encompass one parcel that is adjacent to the Central Freeway on-ramp at Octavia Boulevard, such that the eastern boundary of the district is adjacent to the western boundary of the Hub Plan area. The Elgin Park-Pearl Street Reconstruction Historic District contains 35 contributors that represent the residential reconstruction of San Francisco’s neighborhoods following the 1906 earthquake. The district’s period of significance is 1906–1913.
- Woodward Street Romeo Flats Reconstruction Historic District:** The Woodward Street Romeo Flats Reconstruction Historic District was found eligible for listing in the California register in the Inner Mission North Historic Resource Survey under criteria 1 and 3 and is currently under consideration for landmark designation under article 10 of the San Francisco Planning Code. The district is a medium-scale residential enclave located along Woodward Street, a narrow one-block street between Duboce Avenue and 14th Street. The Woodward Street Romeo Flats Reconstruction Historic District contains 19 contributors that represent the residential reconstruction of San Francisco’s neighborhoods following the 1906 earthquake. The district contains an unusual clustering of “Romeo” flats, a residential building type with distinctive front stairwells that is endemic to San Francisco and constructed only in the years immediately following the 1906 earthquake. The district’s period of significance is 1906–1912.

In addition, the following header and text have been added under the “Impacts on Historic Districts” heading on p. 3.A-83:

Woodward Street Romeo Flats Street Reconstruction Historic District

Like the Elgin Park-Pearl Street Reconstruction Historic District, the Woodward Street Romeo Flats Reconstruction Historic District is adjacent to but not within the Hub Plan area. Located adjacent to the southern border to the Hub Plan area, the Woodward Street Romeo Flats Reconstruction Historic District is physically separated from the Hub Plan area by the elevated roadway of the Central Freeway, which runs over Duboce Avenue and 13th Street. No new height and bulk districts or streetscape or street network improvements are proposed within the Woodward Street Romeo Flats Reconstruction Historic District. The nearest height limit increase proposed under the Hub Plan is at 170 Otis Street, which is approximately 250 feet north of the northernmost extent of the historic district, on the other side of the elevated Central Freeway. Under the Hub Plan, the Woodward Street Romeo Flats Reconstruction Historic District would retain the essential physical characteristics that convey its historic character as a dense concentration of early 20th-century residential buildings. Potential new development occurring north of the district under the Hub Plan would cause only a negligible change in the district’s broader urban setting. The impact of the Hub Plan on the Woodward Street Romeo Flats Reconstruction Historic District would be *less than significant*.

Finally, the maps shown in Figure 3.A-1, The Hub Plan Area Built Environment Resources, and Figure 3.A-3, The Hub Plan Built Environment Resources and Height Increases, have been revised to include the boundaries of the Woodward Street Romeo Flats Reconstruction Historic District; these are included on the following pages.



Legend

- CEQA Study Area
- The Hub Plan Area
- Individual Development Project Site
- Individual CEQA Historical Resource
- Path of Gold Light Standard

Historic Districts

- Auxiliary Water Supply System Cistern
- Auxiliary Water Supply System Hydrant
- Civic Center Landmark District
- Elgin Park-Pearl Street Reconstruction Historic District
- Hayes Valley Residential Historic District
- Jessie-McCoppin-Stevenson Streets Reconstruction Hist. District
- Market Street Cultural Landscape District
- Market Street Masonry Landmark District
- SOMA LGBTQ Historic District
- Western SOMA Light Industrial and Residential Historic District
- Woodward Street Romeo Flats Reconstruction Historic District

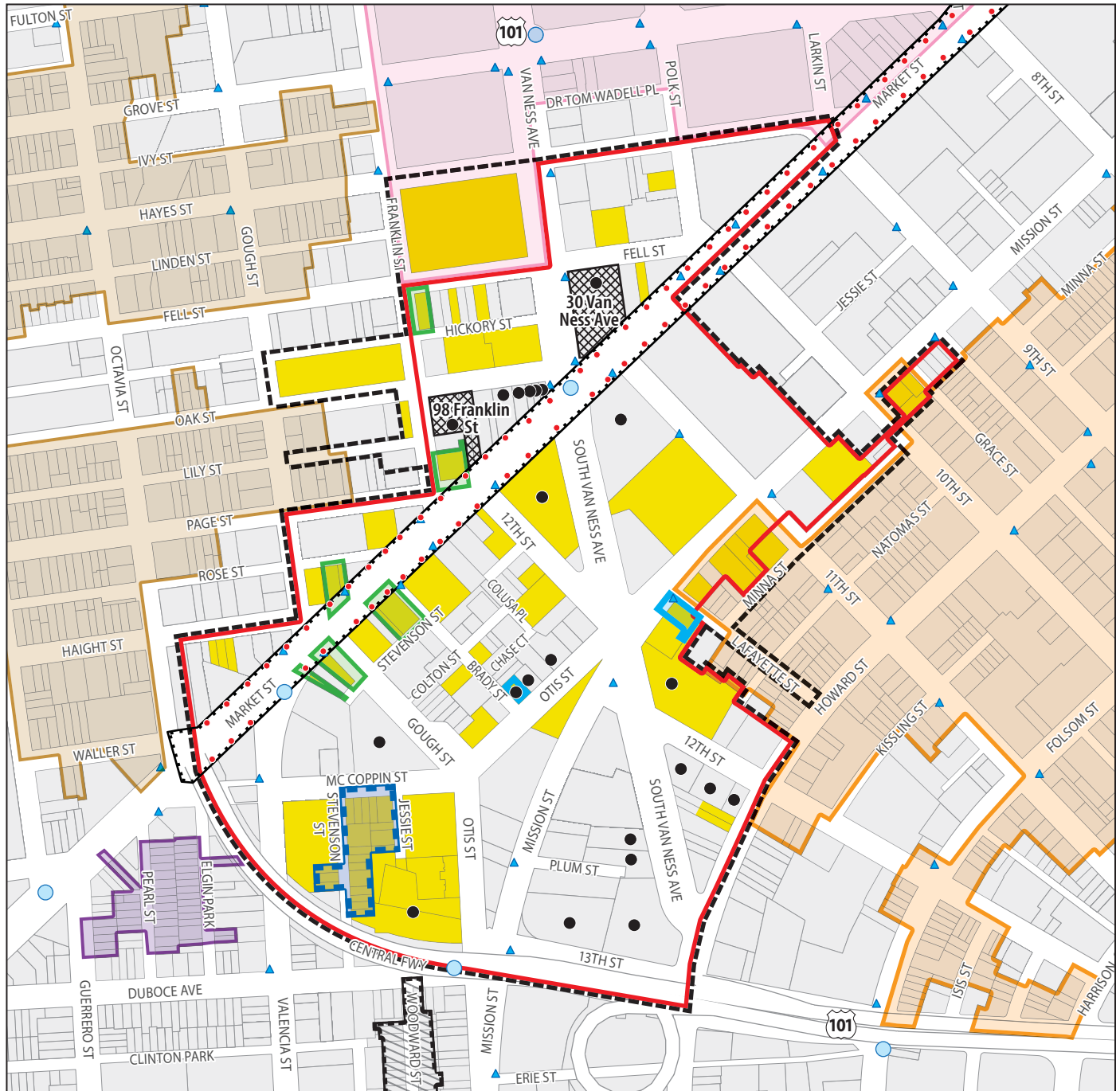
Note: Some historic districts extend outside the boundary of the map.



ICF Graphics... 0070017 (11-25-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.A-1
The Hub Plan Area Built Environment Resources
[Revised]



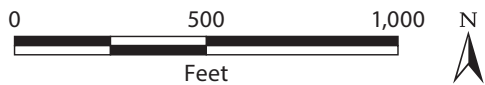
Legend

- CEQA Study Area
- The Hub Plan Area
- Individual Development Project Site
- Individual CEQA Historical Resource
- Path of Gold Light Standard
- Sites with Height Limit Increases Under the Hub Plan

Historic Districts

- Auxiliary Water Supply System Cistern
- Auxiliary Water Supply System Hydrant
- Civic Center Landmark District
- Elgin Park-Pearl Street Reconstruction Historic District
- Hayes Valley Residential Historic District
- Jessie-McCoppin-Stevenson Streets Reconstruction Hist. District
- Market Street Cultural Landscape District
- Market Street Masonry Landmark District
- SOMA LGBTQ Historic District
- Western SOMA Light Industrial and Residential Historic District
- Woodward Street Romeo Flats Reconstruction Historic District

Note: Some historic districts extend outside the boundary of the map.



ICF Graphics... 0070017 (11-25-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)

Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.A-3
The Hub Plan Built Environment Resources and Height Increases [Revised]

E. TRANSPORTATION AND CIRCULATION

The comments and corresponding responses in this section cover topics in Section 3.B, Transportation and Circulation, of the Draft EIR. These include topics related to:

- TR-1 Transportation Setting
- TR-2: VMT Impacts
- TR-3: Transportation Network Companies
- TR-4: Construction Impacts
- TR-5: Transit Impacts
- TR-6: Walking/Accessibility and Bicycle Impacts
- TR-7: Loading Impacts
- TR-8: Traffic Congestion
- TR-9: Electric Scooters

COMMENT TR-1: TRANSPORTATION SETTING

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-HVNA-2
- I-Henderson-2

“The baseline existing conditions on traffic reported in the DEIR (p.3.B.8) are worse than this document reveals, and this means there is an incomplete picture of the chronic congestion that starts in the am peak, peaks multiple times during the day, and lasts much longer than the pm peak defined in the DEIR.

The Planning Department 2019 guidelines for transportation impacts acknowledge that different periods might need to be studied, but this DEIR studies only the PM peak.

For example the DEIR does not acknowledge the westbound congestion on Haight and Page Streets at the Octavia Boulevard. This traffic is coming from the direction of the HUB plan area and 98 Franklin, and is congested morning, evening, and weekends. It has a significant impact on pedestrians and cyclists, as well as transit.

Acknowledging this traffic is important because it can help determine mitigations such as restricting private car access on these streets, which were not intended to carry these large volumes of freeway-bound traffic.” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-2]*)

“So, first of all, 3B-8 -- this is all from the transportation section. The volumes are excruciatingly detailed, but they rely on the PMP. But the reality is, is that there's a chronic peak. There's a peak all day on all of the streets in this area, both in the Plan Area and outside of the Plan Area. And you miss a lot of nuance when you don't look at the volumes and the warnings; for example, the bike traffic is coming from a different direction. There's a lot of traffic flowing to the boulevard -- Octavia Boulevard on Page and Haight that is coming from this area westbound. That's not even in here.

Your technical documents say you can look at different peaks, so you should be including that.” (*Jason Henderson, August 29, 2019, [I-Henderson-2]*)

RESPONSE TR-1

Comments express concern about the weekday p.m. peak-hour baseline condition used in the impact analysis not adequately reflecting congestion in the study area, adding that other peak hours should have been considered. Comments also note that the westbound congestion on Haight and Page streets at Octavia Boulevard is not acknowledged or addressed.

This response provides information from the Draft EIR regarding the existing setting and documents why peak hours other than the weekday p.m. peak hour were not analyzed.

The 2019 Transportation Impact Analysis Guidelines state, with **emphasis** added (page 8):

In San Francisco, the weekday extended p.m. peak period (Tuesday, Wednesday, or Thursday from 3 p.m. to 7 p.m.) is typically the period when most overall travel happens.¹⁰ Although a substantial amount of travel occurs throughout the day and impacts from projects are typically less during other periods, the methodology **should typically focus on this period** (including limiting the hours within the extended p.m.

¹⁰ Examples that illustrate this statement are as follows: Network transit and vehicular travel speeds are lower during the p.m. peak period (4:30 p.m. to 6:30 p.m.) than during the a.m. peak period (7 a.m. to 9 a.m.), as documented in San Francisco County Transportation Authority’s *Congestion Management Program*, December 2015; demand at transit stations is consistent or generally higher throughout the p.m. peak period relative to demand at transit stations during the a.m. peak period, as documented in the Metropolitan Transportation Commission’s *Core Capacity Transit Study Briefing Book*, July 2016; and the weekday peak period of for-hire vehicles occurs from 6:30 p.m. to 7 p.m., as documented in the San Francisco County Transportation Authority’s *TNCs Today: A Profile of San Francisco Transportation Network Company Activity*, June 2017.

peak period) because changes in travel demand or the public right-of-way would be acute during these periods compared to other times of the day and days of the week. In some instances, most overall travel occurs at different periods (a.m., midday, post-p.m. peak, and/or weekend) in smaller geographic areas (e.g., a segment of a street) under existing conditions or as a result of the project, or the project may result in substantial disparity in travel demand at different periods (e.g., special events). In these instances, the methodology **may substantiate** the use of periods in addition to or other than the weekday p.m. peak.

Consistent with the 2019 Transportation Impact Analysis Guidelines, the weekday p.m. peak hour was analyzed because the p.m. peak hour represents the period when the most travel happens. Analysis of other peak hours, such as the a.m. peak hour, was not considered because the travel demand associated with the primarily residential uses that would be provided as part of subsequent developments under the Hub Plan would be greatest during the p.m. peak hour.¹¹ Thus, adding different periods to the analysis would not add informational value related to the significant environmental effects of the project. Therefore, the use of analysis periods in addition to or other than the weekday p.m. peak hour is not substantiated.

As described in the Draft EIR, page 3.B-34, CEQA section 21099(b)(1) (Senate Bill 743) requires the California Office of Planning and Research (OPR) to establish criteria for determining the significance of transportation impacts that promote a reduction in greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. The statute calls for OPR, in developing the criteria, to recommend potential metrics, including VMT. VMT is a measure of the distance a project causes potential residents, tenants, employees, and visitors to travel as well as the amount of driving, with consideration to the number of passengers in a vehicle. The San Francisco Planning Commission removed automobile delay (vehicular level of service, or LOS) and added VMT criteria through resolution 19579, which was adopted at the Planning Commission hearing on March 3, 2016.¹² This is consistent with OPR's CEQA Guidelines Update.¹³ Therefore, documentation of levels of congestion and mitigation measures related to congestion, such as private-vehicle restrictions on Haight and Page streets, as suggested in a comment, are not required. However, increases in the number of vehicles on streets due to development projects are considered in the assessment of potentially

¹¹ Residential uses generate fewer trips during the a.m. peak hour than during the p.m. peak hour. For example, in the Institute of Transportation Engineers *Trip Generation Manual*, tenth edition trip generation rates for residential high-rise developments (Land Use 222) during the p.m. peak hour for adjacent street traffic is about 13 percent higher than the rate during the a.m. peak hour for adjacent street traffic.

¹² San Francisco Planning Department, *Resolution Modifying Transportation Impact Analysis*, March 3, 2016, http://commissions.sfplanning.org/cpcpackets/AlignCPC%20exec%20summary_20160303_Final.pdf, accessed June 10, 2019.

¹³ California Governor's Office of Planning and Research, *Current CEQA Guidelines Update* (webpage), opr.ca.gov/ceqa/updates/guidelines/, accessed November 12, 2019.

hazardous conditions for people walking or bicycling and delays for transit. Among the factors considered in the impact assessments are the increase in the number of vehicles on streets and at intersections and the number of vehicles crossing a sidewalk or adjacent bicycle lane while entering or exiting a proposed project driveway.

No additional analysis or change to the Draft EIR regarding the baseline condition, congestion in the study area, or the setting used in the impact analysis is required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT TR-2: VMT IMPACTS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-HVNA-5
- O-HVNA-6
- O-HVNA-7
- O-HVNA-8
- O-SOMCAN-4
- O-SOMCAN-13
- I-Henderson-3
- I-Henderson-5

"The DEIR concludes (p. 3.B-10) the Hub "would not cause substantial additional VMT" or induce automobile travel. This conclusion is based on using a threshold of significance of 14.5 miles/day to analyze per capita daily vehicle miles travel (VMT).

Consider that a round trip car ride from 1 South Van Ness to Cow Palace, on the far outer edge of San Francisco, is 13 miles. A driver could commute that far each day and not be considered in this study. The Chase Arena in Mission Bay is 5 miles round trip. The De Young Museum in Golden Gate Park is 6-miles round. Someone could drive round trip to these locations twice and not be included in this study. Tens of thousands of short round trip driving trips such as these examples are incredibly significant and must be mitigated, but the threshold does not capture them.

Based on Table 3.B-8, the DEIR shows significant increased person trips by car (about 6,500 during PM peak and almost 30,000 daily) created by the project. It assumes most of those trips would be within the city. For per capita VMT, many of these trips would likely add up to under a per capita of 14.5 miles." (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-5]*)

"The DEIR projects up to 30 percent more traffic volume on some streets (3.B-50) – How much of this congestion is from car trips under per capita 14.5? The DEIR also acknowledges significant particulate air pollution from traffic and suggests mitigation by reducing vehicle trips – yet is vague on how (suggested mitigations are offered below). None of this is captured in mitigation discussion because the VMT threshold is too high (14.5 miles per day)." (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-6]*)

"The analysis also leaves out TNC VMT. There are many short TNC trips and the DEIR does not account for TNC deadheading or the distances TNCs travel from outside of the city." (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-7]*)

"The tolerance for additional VMT in the Hub is zero. Therefore the proper threshold of significance for this analysis should reflect 1 VMT per capita. (3-B). The city can decide how to analyze VMT impacts and the selection of a high, suburban standard does not fit in the dense urban core. By using the Bay Area per capita VMT, the department misses an opportunity for stronger mitigations of traffic and fails to understand the impact of short car trips and TNC trips –which is significant and harmful for cycling, walking, and transit, as well as Pm 2.5 particulate pollution." (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-8]*)

"VMT impacts not adequately studied, especially when considering TNCs, and socioeconomic make-up of new residents not studied." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-4]*)

"The Vehicle Miles Travelled (VMT) impacts in the report are not adequately studied. The report states on page 3.B-63 that the plan "would not cause substantial additional VMT or induced automobile travel. (Less than significant)." This conclusion is reached by looking at VMT per capita for conditions with the implementation of the plan, as well as assessing consistency with the Sustainable Communities Strategy (Plan Bay Area 2040).

With the introduction of Transportation Network Companies (TNCs) such as Uber and Lyft, calculations of VMT have been rapidly shifting. For this reason, the conclusion that the plan would have a “less than significant” impact on VMT is premature and likely grossly understated. This is supported by recent data that has been released by TNC companies which show enormous impacts to San Francisco total VMT and traffic. As reported in an August 5, 2019 article by Citylab, data released in an August 2019 report by Uber and Lyft through the consultant Fehr & Peers shows that the VMT impact of TNCs in San Francisco is nearly twice that estimated by the San Francisco County Transportation Authority in 2018 (based on 2017 data), with Uber and Lyft alone making up some 13.4% of all VMT in San Francisco.¹⁴ Impacts to VMT have not been adequately studied in the report.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-13]*)

“The VMT threshold, you guys adopted this a few years ago. It's suburban. You're basically capturing -- you're allowing suburban mentality. Ask yourselves how far you drive every day, how far you take an Uber every day. Your VMT analysis doesn't even capture TNCs. That's a substantial amount of VMT happening in this city that is not in this document. Your threshold should be one mile. This area is between one mile and three miles per capita, per day; okay. That's fair. Not a Santa Clara VMT threshold. So that's 3B-10 -- that section there.” (*Jason Henderson, August 29, 2019, [I-Henderson-3]*)

“Travel demand. The travel to the south is underestimated. The document says that it's going to be about three percent. That's crazy. I don't know where that comes from, but it underplays the commuting patterns. I suggest a few mitigations that could be put into this document.” (*Jason Henderson, August 29, 2019, [I-Henderson-5]*)

RESPONSE TR-2

The comments cite concerns about the way VMT was calculated for the Draft EIR and the threshold of significance used to assess the Hub Plan’s impacts related to VMT. The comments suggest that the Hub Plan would have significant VMT impacts because the Hub Plan would increase total VMT.

This response provides information contained in the Draft EIR regarding the VMT analysis methodology as well as project impacts related to VMT. The methodology for the VMT impact analysis is presented in the Draft EIR beginning on page 3.B-38; Impact TR-3 on pages 3.B-63 to

¹⁴ See <https://www.citylab.com/transportation/2019/08/uber-lyft-traffic-congestion-ride-hailing-cities-driversvmt/595393/>.

3.B-68 contains the results of the analysis. The VMT impact conclusion was determined to be less than significant for the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

Use of the VMT Metric in Analyzing Transportation Impacts. As discussed above in Response TR-1, California Senate Bill 743 and CEQA section 21099(b)(1) changed the allowable criteria for analyzing transportation impacts. The San Francisco Planning Commission removed automobile delay (i.e., vehicular level of service, or LOS) and added VMT criteria through resolution 19579 on March 3, 2016.

A comment states that the use of a VMT threshold of significance set at 15 percent below the regional average is inadequate. Instead, the department should use a much lower VMT threshold of significance, including the possibility of zero or one VMT. The comment states that the threshold of 15 percent below the regional average is a suburban threshold and does not fit the dense urban core. By using the higher threshold, the commenter asserts the department misses an opportunity for stronger mitigation of traffic congestion and impacts on walking, bicycling, and transit.

The thresholds of significance that the department uses for VMT analysis meet the criteria of Senate Bill 743 and CEQA section 21099(b)(1). They demonstrate whether a development is in a transportation-efficient location, with safe and adequate access to a multimodal transportation system and key destinations, and whether development will help the city, region, and state reach greenhouse gas reduction targets. By stating that there is a need to mitigate traffic congestion, and that the VMT threshold should be zero or one, the commenter is essentially arguing for vehicular level of service as outlined below.

As documented in the March 3, 2016, Planning Commission staff report, vehicular level-of-service significance criteria encourage harmful sprawl development, which adds a substantial number of vehicles to the overall regional transportation system and increases distances for vehicle travel but has little to no vehicular level-of-service impacts. Conversely, infill development, such as subsequent development under the Hub Plan as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would add considerably fewer vehicles to the overall regional transportation system than sprawl development and result in shorter distances for vehicular travel but could have numerous vehicular level-of-service impacts. This was one reason, among many, why the Planning Commission removed automobile delay from the significance criteria in CEQA through Planning Commission Resolution 19579.

If the department were to adopt a zero or one VMT threshold, it may indirectly discourage development from occurring on a regional level in the transportation-efficient locations that meet the criteria of Senate Bill 743 and CEQA section 21099(b)(1). All developments, regardless of the amount of onsite vehicular parking provided, would generate some VMT.

Although the department acknowledges that providing no onsite vehicular parking would result in less VMT than providing onsite vehicular parking, some people in the development may still park offsite, rent cars occasionally, etc. In addition, the threshold the department uses is set at a level that acknowledges that a development site cannot feasibly result in zero or one VMT per capita without substantial changes in variables that are largely outside the control of a developer (e.g., large-scale transportation infrastructure changes, social and economic movements).

VMT Impact Assessment. As noted on Draft EIR page 3.B-38, the impact assessment of the Hub Plan’s rezoning proposal for increasing development potential requires demonstrating consistency with the region’s Sustainable Communities Strategy. The Metropolitan Transportation Commission’s 2017 regional transportation plan, *Plan Bay Area 2040*, adopted in July 2017, is the region’s Sustainable Communities Strategy. According to the impact assessment methodology recommended by OPR and adopted by the Planning Commission, a land use plan may have a significant impact on transportation if it is not consistent with the relevant Sustainable Communities Strategy. For this purpose, consistency with the Sustainable Communities Strategy means the following must be true:

- Development specified in the plan is also specified in the Sustainable Communities Strategy (e.g., the plan does not specify development in outlying areas specified as open space or a Priority Conservation Area in the Sustainable Communities Strategy); and
- Taken as a whole, development specified in the plan leads to a VMT that is equal to or less than the VMT per capita specified in the Sustainable Communities Strategy.

Regarding the first criterion, development specified in the Hub Plan is also specified in the Sustainable Communities Strategy and does not include development in outlying areas specified as open space or a Priority Conservation Area in the Sustainable Communities Strategy.¹⁵ The Hub Plan meets the criterion related to land use. Furthermore, the Hub Plan area is within a Priority Development Area, according to *Plan Bay Area 2040*.¹⁶ Given the relatively low average for daily VMT per capita in the Hub Plan area, locating land use growth in the Hub Plan area would result in significantly less VMT per capita than locating this growth in other locations within the Bay Area or San Francisco.

¹⁵ Priority Conservation Areas in the Bay Area are areas the Associational of Bay Area Governments Executive Board has adopted as being regionally significant open spaces.

¹⁶ Priority Development Areas are areas within existing communities that local city or county governments have identified and approved for future growth..

Regarding the second criterion, the department uses the following quantitative thresholds of significance to determine whether the project would generate substantial additional VMT:

- For residential projects, if it exceeds regional (i.e., Sustainable Communities Strategy) household VMT per capita minus 15 percent.
- For office projects, if it exceeds regional (i.e., Sustainable Communities Strategy) VMT per employee minus 15 percent.
- For retail projects, if it exceeds regional (i.e., Sustainable Communities Strategy) VMT per employee minus 15 percent.
- For mixed-use projects, each land use is evaluated independently, per the thresholds of significance described above.

Therefore, for consistency with the Sustainable Communities Strategy, the Hub Plan would need to meet these thresholds. These standards are derived from a regional average but hold the Hub Plan to a threshold that is 15 percent *below* the regional average as shown in the Draft EIR on page 3.B-40. To estimate daily VMT per capita or per employee, the Hub Plan programmatic analysis included all vehicle trips, including those that are shorter than the Bay Area regional average for each trip purpose (e.g., work trips, work-based trips, school trips). The analysis also considers the possibility that people living, working, or making visits in the Hub Plan area may make multiple trips in a single day and in some cases exceed the daily VMT thresholds established when summed together.

As shown in Table 3.B-11 in the Draft EIR, average daily VMT per capita for the Hub Plan area is between 34 and 78 percent below the 2020 baseline regional average for daily VMT per capita or employee. Furthermore, daily VMT per capita for office uses and retail uses in the Hub Plan area is projected to be lower with the Hub Plan than would be the case under currently approved and foreseeable development for the same area. Daily VMT per capita is slightly higher with implementation of the Hub Plan but only by two-tenths of a mile under 2020 baseline conditions.

The comments also state that the VMT calculations are inaccurate because they exclude TNC trips. This response addresses VMT in relation to TNCs; please see Response TR-3 for a discussion of how the Hub Plan analysis accounted for TNCs.

The increased prevalence of for-hire vehicles, like TNCs, in San Francisco has changed the way people travel. However, the VMT estimates for the project site are well below the VMT threshold of significance, and any VMT increase from the increased prevalence of for-hire vehicles would be unlikely to change the conclusions regarding the Draft EIR VMT analysis. No recent studies allow the department to make VMT estimates as it relates to TNCs at the project level, and based on available data, recent studies do not indicate that the project would result in an increase in VMT of any magnitude that would change the conclusions.

As stated in the Draft EIR on page 3.B-39, the assessment of the VMT effects of the proposed Hub Plan was performed using the San Francisco County Transportation Authority's (SFCTA's) SF-CHAMP model. The version of the SF-CHAMP model used to complete the analysis included the best information available regarding TNC travel patterns. SF-CHAMP estimates the probability of driving based on auto ownership, household income, and other variables. To the extent that people previously would have traveled in another personal or for-hire vehicle (e.g., taxi), but now travel using a TNC service, this would be accounted for in previous household travel surveys and thus would be accounted for in VMT estimates from SF-CHAMP.

The SFCTA's *TNCs and Congestion* report,¹⁷ released in 2018, identifies the extent to which TNCs contributed to increased roadway congestion in San Francisco between 2010 and 2016, relative to other potential contributing factors, and congestion metrics, including VMT. As described above, the state legislature decided that automobile delay, as described by measures regarding traffic congestion, is not considered a significant impact on the environment under CEQA. The study notes that total VMT in San Francisco would have increased between 2010 and 2016 with or without TNCs; however, TNCs accounted for 47 percent of the increase in VMT on study roadways during that period. The *TNCs and Congestion* report does not provide data regarding household travel behavior or external San Francisco trips that would allow for a meaningful comparison to TNC activity in the region, which is the basis for the threshold of significance. No known studies attribute VMT increases to land uses or locations or provide the opportunity for a meaningful comparison in a CEQA VMT analysis, including a study cited by a commenter.¹⁸

Without these pieces of additional information, the VMT analysis presented in the Draft EIR is still the best information, based on currently available data. The information in the Draft EIR is supported by substantial evidence, and no changes to the Draft EIR regarding VMT are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

¹⁷ San Francisco County Transportation Authority, *TNCs and Congestion*, 2018, <https://www.sfcta.org/projects/tncs-and-congestion>.

¹⁸ Fehr & Peers, *Estimated TNC Share of VMT in Six U.S. Metropolitan Regions (Revision 1)*, August 6, 2019, also does not allow for such comparison. The study identifies the percent of VMT attributable to the TNC companies within the Bay Area region and San Francisco County during September 2018. This study does not attribute VMT increases to land uses or refined locations (e.g., transportation analysis zones) or identify the percentage of people switching from non-vehicular or transit travel to TNC trips. This study also does not provide TNC data for independent verification of the study's findings or independent analysis to facilitate attribution of VMTs to particular land uses, locations, or mode choices.

COMMENT TR-3: TRANSPORTATION NETWORK COMPANIES (TNC)

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- I-Goodman (1)-1
- I-Hestor (2)-10
- O-SOMCAN-5
- O-SOMCAN-14
- O-SOMCAN-15

“The lacking vision on this area is astounding. I see LYFT/UBER vehicles circling and blocking 9/9R buses on 11th constantly along with 49/47 and 14/14R buses. They circle the area like sharks.” (*Aaron Goodman, August 27, 2019, [I-Goodman (1)-1]*)

“Please describe "blackout zone" imposed by City around Chase Center/ arena north of 16th St at 3rd put in place for events 9/6/19 and discussed with maps in the Examiner. The SFMTA created a SIGNIFICANT blackout area where ride-hails were explicitly prohibited from pickups and dropoffs. The area was also clearly signed and enforced. Please describe such a strict limitation for Van Ness and Market area. Uber supposedly also created a digital no-pickup zone "geofence" for 2 block area around Chase Center.

Uber and Lyft vehicles are notorious for stopping wherever they wish and ignoring traffic laws. Stop in traffic lanes, with doors opening on traffic side of vehicle, making illegal u-turns in the middle of block. Driving down streets (e.g. Market) where non-taxis are prohibited. Slowing down Muni and traffic.

Muni service for the public should not have to compete with interference by TNCs. Van Ness should be geo-fenced and prohibited to TNCs.

The confluence of transit on Market, Van Ness and other surface streets, makes it even more imperative that transit flow freely in this area.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-10]*)

“Impact of TNCs, driving hazards, pedestrian safety hazards, bicycling hazards, and impact to transportation are not adequately studied.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-5]*)

“There is also an inadequate understanding of the economics of the type of development that is encouraged by the plan, as well as the type of development called for under Plan Bay Area 2040. As the plan and Plan Bay Area 2040 cater overwhelmingly to luxury market-rate development (both residential and commercial), there is inadequate study as to the modalities of transportation preferred by people of higher incomes, especially in San Francisco where extremely high incomes support convenience over cost. When very high income earners, as San Francisco continues to see an increase of as lower-income residents continue to leave the city - there is a direct inversion happening,¹⁹ have endless amounts of disposable income this affects how they relate to transportation. Transportation infrastructure in San Francisco has not kept up with the rate of population expansion, and continues to lag behind. This creates the condition in which you can get around San Francisco faster and more efficiently in a private automobile - either individually owned or through the use of TNCs; and with endless disposable income this becomes the default option. A recent July 25, 2018 report by Schaller Consulting titled “The New Automobility: Lyft, Uber and the Future of American Cities,” reports that “People with a bachelor’s degree, over \$50,000 in household income, and age 25 to 34 use TNCs at least twice or even three times as often as less affluent, less educated and older persons;” and more specifically, the report shows that households that make \$200,000 or more use TNCs for trips 45 times per year, while households making less than that use TNCs for trips 18 times a year, with households making \$15,000 or less a year using TNCs only 6 times a year - this last statistic points to an almost nine times difference in the use per year of households making over \$200,000 versus households making less than \$15,000 a year.²⁰ This is not studied in the report and shows how the understanding and study of VMT and the socioeconomic make-up of new residents are inadequate.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-14]*)

“Driving hazards are not adequately studied in the report. The report states on page 3.B-68 that the plan “would not create major driving hazards. (Less than Significant).” This is rationalized by the following: “traffic volumes would be distributed among multiple streets in the transportation study area,” and also because of new streetscape and street network improvements, and new commercial and passenger loading zones (pages 3.B-68 - 3.B-70). TNCs are not considered at all in the driving hazards analysis. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to driving hazards as well, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-15]*)

¹⁹ See <https://48hills.org/2016/10/who-is-moving-into-and-out-of-sf/>.

²⁰ See <http://www.schallerconsult.com/rideservices/automobility.pdf>.

RESPONSE TR-3

The comments raise several concerns regarding the existing level of TNC activity in the city as well as the presumed increase in the number of TNC vehicles due to development under the Hub Plan. Specifically, the comments indicated that the Hub Plan analysis and assessment did not account for the projected TNC vehicle demand associated with development under the Hub Plan and the effects on bicyclists, people walking, transit, and personal automobiles. Finally, one comment calls for the city to consider geographic restrictions on where TNC vehicles can operate within the Hub Plan area.

This response provides information on how TNC vehicles are accounted for in the Hub Plan analysis and assessment, including assessment of VMT, transit operations, conditions for people who walk and bike, driving hazards, and loading.

In California, regulatory authority over private commercial transportation is divided between state and local government. The CPUC regulates limousine, shuttles, and charter bus services, whereas cities and counties are given exclusive authority over taxi service. TNC vehicles may operate similar to taxis; however, unlike taxis, they are regulated by the CPUC, not the individual cities or counties in which they operate. And unlike taxis, there is no mandated limit on the number of TNC vehicles that can be in service at any time. Outside of private vehicular access, parking and loading restrictions, the CPUC and San Francisco regulations do not limit the number or type of passenger vehicles allowed to operate on city streets.

In recent years, TNC use has grown significantly. According to the most recent draft San Francisco Municipal Transportation Agency (SFMTA) 2017 Travel Decisions Survey, TNC use has approximately doubled in San Francisco since 2015.²¹ However, many details regarding how these companies fit into the larger transportation picture in San Francisco remain unclear because of a lack of data, mainly because Uber and Lyft, both private companies, generally choose not to disclose specifics about their business models.

One comment cites the July 25, 2018, report by Schaller Consulting titled *The New Automobility: Lyft, Uber and the Future of American Cities*. This report discusses a methodology for estimating TNC mode share by using data in the 2017 National Household Travel Survey. TNC mode-share estimates using this methodology are helpful at a national, state, and even regional scale, but within the Hub Plan area, the data do not represent an improvement over the data collected in the SFMTA 2017 Travel Decisions Survey or the demographic data used in the SF-CHAMP travel model, as described below.

²¹ SFMTA, *2013-2017 Travel Decision Survey Data Analysis and Comparison Report*, July 2017, https://www.sfmta.com/sites/default/files/reports/2017/Travel_Decision_Survey_Comparison_Report_2017.pdf.

Recent analysis sheds some light on TNC operations in San Francisco; however, similar to *The New Automobility* report cited in the previous paragraph, the analysis is not broken out at an appropriate geographic or temporal scale to improve upon the insight provided in this EIR (see Response TR-2 for a discussion of the limitations of recent TNC VMT studies).

As noted in the Draft EIR on pages 3.B-40 and 3.B-51, TNC and taxi trips are included in the vehicle trip generation estimates for the two individual development projects (30 Van Ness Avenue and 98 Franklin Street). For each of the individual development projects, the number of passenger loading instances is estimated for the weekday p.m. peak hour (comments on commercial loading are addressed in Response TR-7, Loading Impacts, below). Passenger loading demand was calculated by using the passenger loading methodology for taxi/TNC and the pickup/drop-off vehicle trip demand described in Appendix F of the 2019 Transportation Impact Analysis Guidelines, which are included in Appendix D of the Draft EIR.

One of the comments cites a study that links higher-income households to higher TNC usage and contends that the trip generation in the Draft EIR does not adequately account for demographic characteristics such as household income. As noted in the Response TR-2, above, the SF-CHAMP travel demand model was used to estimate vehicle trip generation from private automobiles and taxis. SF-CHAMP estimates the probability of driving, based on a number of demographic inputs, including auto ownership, household income, and age, among other variables. To the extent that people would have previously traveled in another personal vehicle or for-hire vehicle (e.g., taxi) but now travel by using a TNC service, this would be accounted for in previous household travel surveys and therefore would be accounted for in vehicle trip estimates from SF-CHAMP.

TNC trip estimates for individual projects, TNC vehicles, and their operation were considered in the assessment of impacts regarding driving hazards (Draft EIR pages 3.B-68 to 3.B-70), transit (Draft EIR pages 3.B-70 to 3.B-74), people walking (Draft EIR pages 3.B-74 to 3.B-79), people bicycling (Draft EIR pages 3.B-80 to 3.B-83), and loading (Draft EIR pages 3.B-83 to 3.B-87). The 2019 Transportation Impact Analysis Guidelines define hazards as the “engineering aspects of a project (e.g., speed, turning movements, complex designs, substantial distance between street crossings, sight lines) that may cause a greater risk of collisions that result in serious or fatal physical injury than a typical project. This significance criterion focuses on hazards that could reasonably stem from the project itself, beyond collisions that may result from non-engineering aspects or the transportation system as a whole.”²² The analysis therefore assesses the potential for hazardous conditions to occur as a result of the project, including from project-generated TNC turning movements and loading activities. As

²² San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Walks/Accessibility*, 2019, Appendix G, p. G-3.

described further in Responses TR-6 and TR-7, the project would result in less-than-significant impacts related to potentially hazardous conditions; however, the project could result in an unmet loading demand, which could result in potentially hazardous conditions.

One of the comments requests that the Hub Plan identify new locations for loading zones within the Hub Plan area, potentially using “geo-fencing,”²³ as has been used around the Chase Center in Mission Bay, on Valencia Street in the Mission District, and for special events such as Outside Lands at Golden Gate Park. Geo-fencing is a curb management strategy that restricts TNC pick-up activity (TNCs do not currently restrict drop-off activity) within a designated geographic area to defined loading zones. During events at the Chase Center, for example, this restricts TNC pickups on portions of Third, 16th, and Mariposa streets, directing matched drivers and passengers to designated loading zones on Terry A. François Boulevard, Mission Bay Boulevard, and Fourth Street. This strategy prevents loading-related congestion from blocking traffic flow on Third, 16th, and Mariposa streets leading up to and following an event at Chase Center and instead concentrates loading activity on local lower-capacity streets. Although geo-fencing can be an appropriate strategy in certain circumstances, it is not an appropriate strategy for addressing the Draft EIR’s loading impact because it does not address the unmet loading demand from subsequent developments (see Response TR-7 regarding loading impacts).

Although the Hub Plan proposes no specific restrictions on TNCs or loading activity, under cumulative conditions, the Better Market Street Project will restrict private vehicle access, including pickup and drop-off activity, along Market Street within the Hub Plan area. Van Ness Avenue will be open to private vehicles and TNCs; however, transit will operate in protected center-running bus-only lanes with the opening of the Van Ness Bus Rapid Transit (BRT) Project, thereby minimizing transit conflicts with TNC loading activity. The two individual development projects and subsequent development projects in the Hub Plan area with more than 100,000 square feet of residential, commercial office, retail, and/or industrial uses would be required to develop and implement a Driveway and Loading Operations Plan (DLOP) to address project-generated commercial and passenger loading issues (see Response TR-7 regarding loading impacts).

Each transportation impact statement is supported by substantial consideration of TNC activity, using the best information available, and no additional analysis or mitigation measures are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project’s approval process.

²³ *Geo-fencing* refers to the use of global positioning systems or radio frequency identification devices to create a virtual geographic boundary, enabling software to trigger a response (e.g., text message, email alert, app notification) when a mobile device enters or leaves a particular area.

COMMENT TR-4: CONSTRUCTION IMPACTS

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- O-HVNA-11

“The construction management plan should dovetail with the Better Market Street Plan to restrict cars on Market between 11th and 12th Streets (and extend west to Gough). HVNA’s Transportation & Planning Committee respectfully asks that these mitigations be included in the Final EIR in order to address impacts of private car traffic, e-commerce delivery, TNCs.” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-11]*)

RESPONSE TR-4

The comment states that the construction management plan should dovetail with the Better Market Street vehicle access restrictions.

This response provides information and clarification regarding the proposed project’s construction-related transportation impacts, as presented in Impact TR-1 of the Draft EIR, pages 3.B-54 to 3.B-58, which were determined to be significant and unavoidable with mitigation.

As presented in Impact TR-1, the Hub Plan would require an extended duration for the construction period and intense construction activities. This could create potentially hazardous conditions for people walking, bicycling, or driving or interfere with accessibility. Mitigation Measure M-TR-1, Construction Management Plan, includes measures that would be included as part of the construction management plan to minimize significant construction-related transportation impacts. The construction management plan would reflect transportation network conditions as they exist during the project’s construction period. As noted in the Draft EIR on page 3.B-57, Mitigation Measure M-TR-1, Construction Management Plan, addresses the potential for project overlap with other development and infrastructure projects and includes a measure that would require preparation of a coordinated construction management plan should construction overlap occur. Therefore, the commenter’s concerns regarding dovetailing with the Better Market Street Project’s vehicle access changes as well as construction activities, should any overlap occur, would be addressed. Accordingly, City agencies have been coordinating the review of construction activities under the Better Market Street Project with surrounding development projects in the study area, including the 30 Van Ness Avenue Project and the 98 Franklin Street Project, so as not to preclude the potential development of those projects and so that construction phases can overlap. Additional mitigation measures are not required.

The information in the Draft EIR is supported by substantial evidence, and no changes to the Draft EIR regarding construction-related transportation impacts are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT TR-5: TRANSIT IMPACTS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- I-Goodman (1)-5
- I-Hestor (2)-8
- I-Hestor (2)-9
- O-HVNA-4
- O-SOMCAN-19
- O-DHIC-1
- O-NC-2
- I-Warshaw-2
- I- Hestor (1)-2
- I- Hestor (1)-3
- I-Walbourn-5

"Please do not ignore the growth impacts any longer, the rest of the city cannot get to where it needs to go, when the mess that is Van Ness continues without seriously un-clotting the system of cars, and providing adequate capacity, and speed to get people around town in 20 min. or less, without an uber or lyft." (*Aaron Goodman, August 27, 2019, [I-Goodman (1)-5]*)

"The existing public transit lines in the Hub area is shown in Fig 3.B-3. It is important to see how lines passing thru the Hub connect to the rest of SF. Where disruptions IN THE HUB AREA could affect Muni service for the REST OF THE CITY. Please provide a map showing the full route of each public transit lines - at least in San Francisco - so that the full effect *on entire City* of congestion on the lines coming through The Hub can be understood.

If public transit lines go outside of the City, they could be shown separately." (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-8]*)

“Newspaper articles have shown drop off in Muni bus ridership on Van Ness in the past few years. The length of time for street construction and work to improve Van Ness Muni has been **part** of the problem.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-9]*)

“**Transit Delay:** Why are the Haight Street buses (6 & 8) omitted from the study? (p. 3.B-71). These are important buses that carry thousands of passengers through the Hub daily.” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-4]*)

“Transportation impacts are not adequately studied in the report. The report states that the plan “would not substantially delay local or regional transit...(Less than Significant)” (page 3.B-70). Although the report acknowledges that “Implementation of the Hub Plan would increase transit travel times because of a combination of factors, including additional vehicular traffic and transit ridership generated by subsequent development under the Hub Plan as well as proposed changes to the roadway network” (page 3.B-70), the report concludes that no significant impacts would occur because “the increases in transit travel times for all of the routes would be less than the significance threshold of four minutes or half the headway” (page 3.B-71). TNCs are not adequately studied in the analysis of impacts to transportation. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to transportation impacts, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas. This is a flaw of the report. Further, the lack of new transportation infrastructure is not adequately studied in the report. As San Francisco continues to grow in population (as will significantly occur under the plan), public transportation in San Francisco continues to become increasingly negatively impacted. The lack of study of impacts to existing infrastructure in the face of this reality is a flaw of the report. For these reasons, the impacts to transportation of the plan studied in the report are inadequate.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-19]*)

“Good afternoon, President Melgar and Planning Commissioners. I’m Carolyn Kenady from the Dolores Heights Improvement Club. I oppose the up-zoning of the Market and Van Ness Hub Plan Area as it stands today owing to the impact that it will have on our already overburdened transit system.

The Environmental Impact Report appears exhaustive, but the EIR missed the impacts of transit underground. We need to dig into what’s going on in the Market Street tunnel before this goes forward.

Here's the current state of MUNI for riders under Van Ness and Market Streets. I commuted to work on MUNI Metro until 2017 and still, regularly, ride MUNI. I experience the delays and lack of on-time performance. I'm sure everybody else in this room has been on the MUNI underground and heard, "We're delayed by traffic in the tunnel." And the downtown platform crowds at rush hour, SRO. I fully expect tonight when I leave here, I will be on the platform at Van Ness playing sardines or not able to get onto a train at all. I often walk back from this area of town.

And no surprise there, SFMTA's own stats show that the MUNI Metro and the street cars running under the street -- running through the Market Street tunnel have an average weekday ridership 173,500 people. That's up 16 percent from 2015. In the past year, these streetcars only have an on-time performance of 41 percent. That's less than half of MUNI's official on-time target of 85 percent. And the chart attached to your handout, shows more detail there.

This really worries me. SFMTA is unable to increase capacity and performance to meet even today's demands. Last week, the DHIC -- my board -- gave two SFMTA planners feedback on a project to improve the J Church Line, and they clarified that this short-term project will not address the much larger issue of the MUNI Metro speed and its delays in the Market Street tunnel. They told us the tunnel was not designed to handle it's current passenger loads, that average speeds are lower than prior years owing to the traffic, and, of course, as we all know, the epic system meltdown on April 26 of this year revealed how fragile the tunnel truly is.

We asked how -- we asked the planners how SFMTA will fix the tunnel. They told us that a project is on the books but will take 20 to 30 years to complete. So here we are, today San Franciscans are frustrated, angry, and tired by the daily challenges of traffic, congestion, transit delays, and MUNI overcrowding.

Do you really want to throw more gasoline on the bonfire by approving 8,000 more units?

Please, delay green-lighting the EIR and the Hub and ask the planning staff and/or SFMTA to identify the impacts of the increased population on MUNI Metro and recommend ways to create the additional capacity. Thank you very much." (*Dolores Heights Improvement Club, August 29, 2019, [O-DHIC-1]*)

"I think that MUNI was addressed. The aboveground is, also, seriously impacted. This is talking about five years of unavoidable construction impacts on MUNI's travel. That's the E line, 6, 7, probably the 21, and then, of course, on MUNI underground." (*Tess Walbourn, August 29, 2019, [I-Walbourn-5]*)

“So if we're going to be developing some 8,000 units adding 50,000 people, where are these people going to be able to get around in the city of San Francisco -- or, actually, some of them might, actually, commute to outside of San Francisco. Our transit system is really maxed out.” *(The Neighborhood Council, Land Use Coalition, August 29, 2019, [O-NC-2])*

“You know, I think some of what concerns me about this, in addition to some technical points and points raised by the other speakers about the adequacy of MUNI and other things like that for services,....” *(Jim Warshaw, August 29, 2019, [I-Warshaw-2])*

“Van Ness Avenue should not have any private buses approved by the planning commission -- one of them is coming to you for approval in a couple months. The Planning Department has a lot of work to do to fight back -- in this EIR's fight to fighting back.

We don't really have a handle on the private-bus system. The Google buses that come right by the Planning Department come right through this area and interfere with traffic. We are spending billions of dollars to reconstruct transit on Van Ness Avenue, and yet we make the transit situation worse by not dealing with Uber and Lyft and everyone who does drop-offs like private buses and don't go to the state as a city to say, "We need some relief. We need some policy to be approved." This is a mitigation measure. One of the major mitigation measures is the city getting a handle on controlling TNCs -- Uber and Lyft.” *(Ms. Hestor, August 29, 2019, [I-Hestor (1)-2])*

“Second very, very specific one, I don't understand why the analysis of transit doesn't include the 8 buses. They're not 3B72. There's no 6 and no 7. Anyone who's a realist knows that they are major vehicle distributions in this city.” *(Ms. Hestor, August 29, 2019, [I-Hestor (1)-3])*

RESPONSE TR-5

A comment requests that the full route for each transit route be presented so that the full effect of congestion on the entire city from routes traveling through the Hub Plan area is understood. Two comments request clarification regarding why the 6 Parnassus, 7 Haight/Noriega, and the 8 Bayshore bus routes were not included in the analysis, while another states that TNCs and new transportation infrastructure were not adequately studied with respect to transit impacts. Comments also raised concerns regarding the provision of Muni transit service in San Francisco to accommodate growth as well as transit operations within the Market Street subway and on Van Ness Avenue. Another comment raises concerns regarding private shuttle bus operations. Other comments state that automobile

congestion results in delays for Muni bus service operations and note that increased automobile traffic from the Hub Plan would result in significant impacts on bus transit operations.

The response provides information and clarification related to the transit impact analysis presented in the Draft EIR; the impacts were determined to be less than significant under 2020 baseline-plus-project and 2040 cumulative conditions.

The response to transit impact analysis comments is organized under the following topics:

- Transit Route Maps
- Routes Selected for Transit Travel Time Analysis and Analysis Methodology
- Private Shuttle Bus Operations
- Adequacy of Muni Service

Transit Route Maps. Figure 3.B-4 on Draft EIR page 3.B-12, referred to in a comment, presents the Muni bus routes as well as the streetcar and light-rail lines serving the Hub Plan area. Because many of these routes traverse a substantial portion of the city, providing a figure that clearly shows the entirety of these routes would be difficult to include in the EIR. However, the SFMTA Muni system map²⁴ and schematic map of the routes serving the Market Street corridor,²⁵ including the routes analyzed as part of the quantitative transit analysis, were added to Attachment D.

Routes Selected for Transit Travel Time Analysis and Analysis Methodology. The methodology used to conduct the quantitative transit travel time analysis is presented in the Draft EIR on pages 3.B-42 to 3.B-45. As described on Draft EIR page 3.B-42, impacts of subsequent development under the Hub Plan on transit operations were measured in terms of increases in transit travel times for bus routes that travel in mixed-flow travel lanes (i.e., not within transit-only lanes) for more than two blocks within or adjacent to the Hub Plan area. Because the 6 Parnassus and 7 Haight/Noriega bus routes travel within the existing Market Street transit-only lanes (between Steuart Street and Van Ness Avenue in the westbound direction and between 12th and Steuart streets in the eastbound direction) and a transit-only lane on Haight Street (eastbound only), these routes would not be subjected to substantial increases in transit delay due to additional vehicles generated by the proposed project. For these reasons, the 6 Parnassus and 7 Haight/Noriega routes, which travel through the project area, are discussed in the Draft EIR but are not included as part of the quantitative transit delay analysis.

²⁴ A Muni system map is provided at <https://www.sfmta.com/maps/muni-system-map>.

²⁵ SFMTA, *Better Market Street Project*, SFMTA Board of Directors Meeting Presentation, page 3, October 15, 2019, https://www.sfmta.com/sites/default/files/reports-and-documents/2019/10/10-15-19_item_11_better_market_street_-_slide_presentation.pdf.

Furthermore, under cumulative conditions within the Hub Plan area, the Better Market Street Project will convert the existing center transit-only lanes or mixed-flow lanes to Muni-only lanes, generally between 12th and Main streets, which, along with the private-vehicle access restrictions that are part of the Better Market Street Project, will reduce transit travel times for these routes. In addition, the 8 Bayshore, 8AX Bayshore A Express, and 8 BX Bayshore B Express routes do not travel within the Hub Plan transportation study area.

The transit impact analysis of the Hub Plan is presented in Impact TR-5 on Draft EIR pages 3.B-70 to 3.B-74. To determine project impacts, travel times for the bus routes were calculated for 2020 baseline and 2020 baseline-plus-project conditions. The difference in transit travel times (i.e., the increase in transit delay) between these two scenarios was compared to the significance threshold presented in the Draft EIR on page 3.B-42. The baseline conditions reflect vehicle delay associated with all vehicles, including buses and TNC vehicles, within the travel lanes. The baseline travel times used in the analysis were confirmed by comparing model results to actual stop dwell times and route travel times obtained from the SFMTA's automatic vehicle location (AVL) reports. Baseline-plus-project conditions reflect increases in the number of vehicles, including TNC vehicles, to the extent that vehicle trip estimates from SF-CHAMP account for people who previously traveled in another personal vehicle or a for-hire vehicle (i.e., taxi) but now use a TNC service (refer to Response TR-3, above, for more details); therefore, the transit analysis takes into consideration the effect of TNC vehicles. As presented on Draft EIR pages 3.B-71 and 3.B-72, the increases in transit travel times for all routes under baseline-plus-project conditions would be less than the significance threshold of four minutes, or half the headway, and therefore, implementation of the Hub Plan would not result in significant impacts on transit operations.

Private Shuttle Bus Operations. Comments regarding private buses operating in San Francisco are noted. Private commuter shuttles that provide service between San Francisco and adjacent counties are described in the Draft EIR on pages 3.B-11 to 3.B-13. These shuttle buses are subject to the SFMTA Commuter Shuttle Program,²⁶ which requires private shuttle operators to pay a fee and comply with permit requirements. The Planning Commission has no authority to regulate private shuttles. Private shuttles are required to stop at zones that have been designated for their service. Figure 3.B-4 on Draft EIR page 3.B-15 presents the locations of designated stops for private shuttles within or near the Hub Plan area. As noted in the figure, there is only one designated commuter shuttle stop within the Hub Plan area (i.e., on southbound Van Ness Avenue between Mission and 13th streets); this stop is a shuttle-only loading zone (i.e., not shared with Muni buses). There are no private commuter shuttle stops on Van Ness Avenue (see Response TR-3 for a discussion of TNCs).

²⁶ The SFMTA's Commuter Shuttle Program received environmental clearance in 2015 (Case Number 2015-007975ENV).

Capacity of Muni Bus and Light-Rail Routes. Comments on conditions within the Market Street subway for light-rail routes and requests for additional Muni transit service and new transportation infrastructure are noted; however, citywide improvements to bus and light-rail operations within the subway are outside the scope of this project. As described in the Draft EIR on page 3.B-42, transit capacity is no longer considered in assessing the environmental impacts of a project on local or regional public transit operations. This is consistent with state guidance that calls for not treating the addition of new users as an adverse impact and reflecting funding sources and policies that encourage additional ridership. However, as noted on Draft EIR page 3.B-96, the SFMTA is currently conducting a station capacity study at the Van Ness station to evaluate existing and future passenger demand and capacity needs. The SFMTA will recommend physical improvements to increase the number of passengers that can be accommodated on the platforms, in stairwells, and on escalators. Improvements being considered include building additional platform-to-mezzanine stairwells, widening existing platform-to-mezzanine stairwells, and pulling trains to the end of the platform so that passengers boarding/alighting can walk in areas where there is more space. These improvements would address some of the concerns expressed by the commenter regarding Muni light-rail operations within the Market Street subway.

Other studies that address existing and future needs for transit service in San Francisco include the Bay Area Core Capacity Transit Study, ConnectSF Transit Corridor Studies, and the San Francisco Transportation Plan 2050. The Bay Area Core Capacity Transit Study is a collaborative effort to find and prioritize investments that will improve travel on public transit to and from the San Francisco downtown core.²⁷ ConnectSF is a multi-agency collaborative process to build an effective, equitable, and sustainable transportation system for San Francisco's future. The first phase of ConnectSF included developing a vision for the San Francisco transportation system, and the ConnectSF team is working on the next phase of the program, which includes the transit corridor studies.²⁸ The San Francisco Transportation Plan 2050 analyzes all transportation modes, operators, and networks to achieve transportation goals and the ConnectSF vision. The San Francisco Transportation Plan 2050 will establish the city's transportation priorities for investments, which will then be incorporated into the next regional plan that is prepared by the Metropolitan Transportation Commission.²⁹

²⁷ Metropolitan Transportation Commission, *Bay Area Core Capacity Transit Study*, <https://mtc.ca.gov/our-work/plans-projects/other-plans/core-capacity-transit-study>, accessed December 5, 2019.

²⁸ City and County of San Francisco, ConnectSF, <https://connectsf.org>, accessed December 5, 2019.

²⁹ San Francisco County Transportation Authority, *San Francisco Transportation Plan 2050*, <https://www.sfcta.org/projects/san-francisco-transportation-plan>, accessed December 5, 2019.

Regarding conditions for transit on Van Ness Avenue, it is noted that construction of the Van Ness BRT/Improvement Project will be completed in 2021. This project is analyzed in the Draft EIR as part of cumulative conditions. With implementation of the Van Ness BRT Project, two mixed-flow travel lanes will be provided on Van Ness Avenue in each direction, separated by median transit-only lanes. Provision of the median transit-only lanes, along with removal of left turns throughout most of the Van Ness Avenue corridor, will decrease transit travel times on Van Ness Avenue compared with conditions during construction. Although ridership on the Van Ness Avenue routes (i.e., the 47 Van Ness and the 49 Van Ness-Mission) has decreased during construction of the Van Ness BRT/Improvement Project, it is anticipated that riders will return once the transit-only lanes and BRT service is implemented (see Response GC-2 regarding comments requesting new transit service).

The information in the Draft EIR is supported by substantial evidence, and no changes to the Draft EIR regarding transit impacts are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT TR-6: WALKING/ACCESSIBILITY AND BICYCLE IMPACTS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-HVNA-3
- O-SOMCAN-16
- O-SOMCAN-18
- I-Hestor (2)-7

“The report also undercounts pedestrian and cycling volumes because it misses the AM peak (3.B 15 – 19 & 3.B-22). The AM peak volumes of cycling are higher and especially concentrated, whereas the PM peak is more spread-out and dispersed.” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-3]*)

“Pedestrian safety hazards are not adequately studied in the report. The report states that the plan “would not result in hazardous conditions for people walking or otherwise interfere with accessibility for people walking to the project site or adjoining areas (Less than Significant)” (page 3.B-74). Although the report acknowledges a large increase in the number of pedestrians in the area that would occur, it concludes that streetscape and street network improvements would eliminate hazardous conditions and interference of accessibility for pedestrians. TNCs

are not considered at all in the analysis of hazards to people walking. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to walking and pedestrian safety hazards as well, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas. The city’s own reports show the Market Street and Van Ness Avenue intersection and area as one of the most dangerous for pedestrians in the city (the precise area of where the plan proposes new development). As described by a April 7, 2016 Hoodline article, “According to the city, South Van Ness from Market to 12th streets saw a rate of 118 injuries per mile from 2005-2011, including 28 severe or fatal injuries per mile. When weighing severe and fatal injuries more heavily, as the SFMTA has done for each high-injury corridor, the total spikes to 175 injuries per mile. Using city data from 2005-2012, the driving navigation app Waze conducted its own study last fall and named the nearby intersection of Market, Van Ness, Mission and Otis streets one of the most dangerous in the nation. ‘This enormous intersection has 17 lanes of traffic and 7 crosswalks,’ the report said. ‘Between 2005 and 2012, there were 92 vehicle collisions here: six with bicycles, 12 with pedestrians, and 74 with other cars.’”³⁰ In the context of the reality of existing pedestrian safety hazards in this area, the report does not adequately study how an increase in vehicles would not increase walking hazards. The report states “The 30 Van Ness Avenue Project would provide a passenger loading/unloading zone on Van Ness Avenue and adequately accommodate people getting into and out of vehicles” (page 3.B-78). This statement is contradicted later in the report as described at length below in the last paragraph of point #2 (“Driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation are not adequately studied in the report”) of this letter.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-16]*)

“Bicycling hazards are not adequately studied in the report. The report states that the plan “would not result in hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility. (Less than Significant),” and “The new bicycle trips...would use the existing system of bicycle routes and bicycle lanes” (page 3.B-80). Although the report acknowledges an increase in the number of bicyclists in the area that would occur, it concludes “streetscape and street network improvements would not create hazardous conditions for people bicycling or interfere with bicycle accessibility in the area...Thus...the impacts of the Hub Plan on people bicycling would be less than significant” (page 3.B-81). The report states the Hub Plan would not create bicycling hazards because the streetscape and street network improvements would not create hazards for people bicycling - this logic is essentially flawed and is illogical and does

³⁰ <https://hoodline.com/2016/04/pedestrians-beware-the-7-most-dangerous-corridors-in-the-heart-of-sf>

not even reference new development or driving impacts. Coming to the conclusion that street and network improvements would not be hazardous and therefore the plan would not be hazardous to bicyclists is a flaw of the report. Actual impacts to bicyclists must be studied in relation to increased traffic impacts - not street and network improvements. TNCs are not considered at all in the analysis of hazards to bicyclists. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to bicycling hazards as well, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas. As reported in a November 11, 2018 SF Examiner article which looks at CHP crash data contained in an analysis written by the legal firm of Walkup, Melodia, Kelly & Schoenberger, the stretch of Market Street from 11th Street to just past the Central Freeway (the exact area where the plan is proposed) is the second most dangerous area of the city for bicyclists.^{31,32} In the context of the reality of existing bicycling hazards in this immediate area, the report does not adequately study how an increase in vehicles would not increase bicycling hazards. For these reasons, the bicycling hazards are not adequately studied in the report.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-18]*)

“Figure 2-2 shows areas where pedestrian improvements are planned. These areas have few bus lines and bus stops. They are away from area where most riders get on/off buses. Pedestrian improvements, including lighting so that crosswalks are clearly illuminated so drivers can see people crossing the street, are important to safety as well as encouraging people to walk down the street.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-7]*)

RESPONSE TR-6

The comments state that walking and bicycling impacts were not adequately studied and that TNCs were not considered in the analysis. Concerns for specific locations within the study area were also identified. A comment also states that the pedestrian improvements are not near bus routes.

The response provides information and clarification regarding the walking/accessibility and bicycle impact analyses presented in the Draft EIR under Impact TR-6 and Impact TR-7, respectively. Impacts related to walking/accessibility and bicycling were determined to be less than significant.

³¹ <https://www.sfgate.com/local/article/Most-dangerous-bicycle-collisions-fatal-crashes-SF-13375886.php>

³² See <https://www.walkuplawoffice.com/2018/10/12/most-dangerous-areas-for-san-francisco-bicyclists-newstudy/>.

Peak Hour of Analysis. A comment states that the analysis undercounts the number of people walking and bicycling because the a.m. peak hour was not analyzed and notes that the volume of people walking and bicycling is higher during the a.m. peak hour compared with the p.m. peak hour. As discussed in Response TR-1, the p.m. peak hour was analyzed because the p.m. peak hour represents the period during which weekday background travel activities are the greatest. Analysis of a.m. peak-hour conditions was not conducted because the travel demand associated with the primarily residential uses under the Hub Plan would be greater during the p.m. peak hour rather than during the a.m. peak hour.³³

The a.m. and p.m. peak-period data from 2017 indicate that the number of people walking and bicycling on streets within the Hub Plan area is greater in the p.m. peak hour rather than during the a.m. peak hour.³⁴ However, bicycle volumes on Market Street, which serves as an east-west bicycle arterial between downtown and the rest of the city, have different temporal characteristics in that the number of bicyclists is greater and more “peaked” or concentrated over a shorter amount of time during the a.m. peak hour rather than during the p.m. peak hour.³⁵ Therefore, with this exception to Market Street bicycle travel, because of background conditions and because travel demand would be greater in the p.m. peak hour rather than the a.m. peak hour, transportation impacts are adequately addressed in the p.m. peak-hour analysis. Under cumulative conditions, the Better Market Street Project, which was recently approved by City agencies, will implement improvements to bicycle travel along Market Street through the Hub Plan area.

Walking/Accessibility Significance Criteria and Impact Assessment. As stated on Draft EIR page 3.B-37, with respect to walking/accessibility impacts, a project would have a significant effect on the environment if it were to create potentially hazardous conditions for people walking or otherwise interfere with accessibility for people walking to and from the project site and adjoining areas. The 2019 Transportation Impact Analysis Guidelines further define hazards as “engineering aspects of a project (e.g., speed, turning movements, complex designs, substantial distance between street crossings, sight lines) that may cause a greater risk of collisions that result in serious or fatal physical injury than a typical project. This significance criterion focuses on hazards that could reasonably stem from the project itself, beyond collisions that may result from non-engineering aspects or the transportation system as a whole.”³⁶ Increases in pedestrian volumes, in and of themselves, are not considered pedestrian hazards.

³³ Residential uses generate fewer trips during the a.m. peak hour compared with the p.m. peak hour. For example, according to the trip generation rates contained in the Institute of Transportation Engineers *Trip Generation Manual*, 10th edition, for residential high-rise developments (Land Use 222), the trip generation rate during the p.m. peak hour for adjacent street traffic is about 13 percent higher than during the a.m. peak hour for adjacent street traffic.

³⁴ Counts conducted for the 200 Van Ness Avenue Project in April 2017 (see Attachment D).

³⁵ San Francisco Municipal Transportation Agency, *Hourly Bike Counts Dashboard*, <https://www.sfmta.com/reports/hourly-bike-counts-dashboard>, accessed October 11, 2019.

³⁶ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Walks/Accessibility*, 2019, Appendix G, p. G-3.

The Hub Plan's streetscape and street network changes are described in the Draft EIR on pages 2-32 to 2-55, including Figures 2-8 to 2-19. Draft EIR pages 3.B-68 to 3.B-69 provide information regarding the design of the street network changes and the transportation features of subsequent development projects. The street network improvements were designed to improve existing conditions by increasing visibility and slowing vehicular traffic through the use of wider sidewalks, bulb-outs, traffic islands, signals for people walking, changes to curb vehicular parking and loading, special paving, raised crosswalks, and midblock intersections. The proposed streetscape and street network improvements were developed in consultation with various City agencies to prioritize safe travel for people walking and bicycling within the transportation study area. Eventually, the streetscape and street network designs will undergo more detailed design review and be subject to City agency approval.

Subsequent development projects within the Hub Plan area would also be required to undergo review by City agencies, including a review of ground-floor/street-level operations and sidewalk widths. All transportation features of subsequent development projects would be designed consistent with City code provisions, such as the *Better Streets Plan* requirements of the planning code, which improve existing transportation conditions by requiring, for example, expanded or upgraded sidewalks and curb ramps.

The Hub Plan's streetscape and street network changes include features to improve conditions for people walking by opening closed sidewalks, increasing visibility, reducing vehicular travel speeds, widening sidewalks, and adding new signals. In addition to transportation network changes, the Hub Plan includes streetscape amenities such as public seating areas, landscaping, street trees, and lighting for people walking. Although many of these changes would not be adjacent to existing bus routes or bus stops, they would improve the environment for people walking to and from transit.

Impact TR-5 on Draft EIR pages 3.B-74 to 3.B-80 identifies the features of the Hub Plan and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street that would modify the pedestrian network and affect people walking. It also presents an impact assessment that considers increases in the volume of people walking adjacent to these sites, the existing and proposed sidewalk and roadway conditions, as well as the walking/accessibility significance criteria provided above. As described above, transportation features of individual projects and the Hub Plan streetscape and street network changes would be designed consistent with City code provisions and would not result in potentially hazardous conditions. For example, to avoid potential conflicts between vehicles and people walking, the 30 Van Ness Avenue Project does not propose curb cuts on the Van Ness Avenue frontage, and the 98 Franklin Street Project proposes removal of the existing curb cuts from the Oak Street frontage. In addition, as described on Draft EIR pages 3.B-78 and 3.B-82, the 30 Van Ness Avenue Project's garage operations on Fell Street were assessed to determine whether vehicles entering and exiting the proposed garage driveway would create potentially hazardous conditions for people walking and bicycling.

As described on pages 2-32 through 2-43 of the Draft EIR, the Hub Plan streetscape and intersection redesign addressed existing safety issues for people walking, such as long crossings, long wait times, and high-speed vehicular movements at the following roadway segments and intersections: 12th Street between Market and Mission streets, Gough Street between Stevenson and Otis streets, South Van Ness Avenue between Mission and 13th streets, Otis Street between South Van Ness and Duboce avenues, 13th Street/Duboce Avenue between Folsom and Valencia streets, and the Mission Street/South Van Ness Avenue intersection.

Although TNCs are not specifically called out in the impact discussion, they are vehicles and therefore are included as part of the vehicle traffic considered in the walking/accessibility assessment. Under the 2019 Transportation Impact Analysis Guidelines (i.e., the significance criteria for people walking), an increase in the number of vehicles is not a potentially hazardous condition by itself. Instead, the analysis assesses whether the project design or project vehicle trips would create potentially hazardous conditions, such as sight line obstructions or a substantial increase in the number of vehicular trips associated with an existing turning-movement hazard. See Response TR-3 regarding how TNCs are included in the transportation analysis and Response TR-7 regarding passenger loading/unloading impacts.

The Draft EIR does not state that the project's streetscape and street network improvements would eliminate existing hazardous conditions or objects that interfere with accessibility for pedestrians, as stated in a comment; rather, overall, the project would not result in potentially hazardous conditions or pedestrian accessibility issues compared with existing conditions.

Impact C-TR-5 on Draft EIR pages 3.B-96 and 3.B-97 provides the same analysis but under cumulative conditions. It found that implementation of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would result in less-than-significant cumulative walking/accessibility impacts. Therefore, for the above reasons, the impacts of the proposed project on people walking would be less than significant.

A comment raised concern regarding conditions for people walking at the intersections of Van Ness Avenue/South Van Ness Avenue/Market Street and South Van Ness Avenue/Mission Street/Otis Street. Each intersection is discussed below.

- Improvements to the intersection of South Van Ness Avenue/Mission Street/Otis Street are already planned as part of the SFMTA's Muni Forward, 14 Mission Rapid, and Van Ness BRT projects. As described in the Draft EIR on page 2-36 and presented in Figure 2-10 on Draft EIR page 2-37, the Hub Plan street network changes include redesigning the intersection, consistent with and adding to the SFMTA's designs. The Hub Plan street network changes would widen sidewalks, simplify the intersection for people walking, provide more crossing time, realign the median, and upgrade pedestrian refuges. Furthermore, as described on Draft EIR page 2-38 (see also Figure 2-11 on Draft EIR page 2-39), the Hub Plan would change the existing street configuration of South Van Ness Avenue between Mission and 13th streets to a boulevard design, which would

enhance safety, provide vehicular traffic calming, and enhance the environment for people walking. Therefore, the concerns raised by the commenter at this intersection would be addressed as part of the proposed project.

- Improvements to the intersection of Van Ness Avenue/South Van Ness Avenue/Market Street are planned as part of the Better Market Street Project, including implementation of the western variant, which includes additional improvements on Market Street within the Hub Plan area. The Better Market Street Project is generally described on Draft EIR page 3.B-53, and the improvements, as they relate to the Hub Plan area, are discussed in the cumulative impact assessment under Impacts C-TR-1 through C-TR-10 on Draft EIR pages 3.B-91 to 3.B-103. As described on Draft EIR page 3-B-97, among the Better Market Street western variant improvements, sidewalks on both sides of Market Street between 12th and Polk streets will be widened, which will allow more space for people walking and queuing at transit stops and additional space around the entrance to the Muni Van Ness Avenue station. The wider sidewalks will also reduce the distance for people crossing Market Street. With implementation of sidewalk widening, along with other improvements, such as corner bulb-outs, raised crosswalks, and pedestrian crossing refuge zones along the corridor for the Better Market Street Project, the concerns raised by the commenter at this intersection should be addressed as part of the Better Market Street Project.

Bicycling Significance Criteria and Impact Assessment. As stated on Draft EIR page 3.B-37, with respect to bicycling impacts under CEQA, a project would have a significant effect on the environment if it were to create potentially hazardous conditions for people bicycling or otherwise interfere with accessibility for people bicycling to and from the project site and adjoining areas. As noted above, this significance criterion focuses on hazards that could reasonably stem from the project itself, beyond collisions that may result from non-engineering aspects or the transportation system as a whole.³⁷ Contrary to a commenter's statement that "actual impacts to bicyclists must be studied in relation to increased traffic impacts – not streets and network improvements," under CEQA, an increase in traffic congestion by itself does not represent an exacerbated existing or new hazard.

Impact TR-7 on Draft EIR pages 3.B-80 to 3.B-83 identifies the features of the Hub Plan and individual development projects at 30 Van Ness Avenue and 98 Franklin Street that would modify the bicycle network and affect people bicycling. As noted above, the street network changes and transportation elements of the development projects would be required to undergo detailed design review and approval by City agencies. Impact TR-7 presents an impact assessment that considers the bicycle significance criteria provided above for the Hub Plan and the individual development projects.

³⁷ San Francisco Planning Department, *Transportation Impact Analysis Guidelines for Walks/Accessibility*, 2019, Appendix G, p. G-3.

The impact analysis within Impact TR-7 assessed whether implementation of the Hub Plan's streetscape and street network changes, the subsequent developments under the Hub Plan, and the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would create potentially hazardous conditions or interfere with accessibility for bicyclists.

The features of the 30 Van Ness Avenue Project and the 98 Franklin Street Project that would affect the transportation network were assessed to determine the localized impacts of these developments on bicycling and bicycle accessibility. Factors considered in the analysis included the location of loading and garage driveways, turning radii, sight distances, curb regulations, the presence of an adjacent bicycle facility, adjacent travel lanes, and bicycle and vehicle volumes, among other factors.

Each Hub Plan streetscape and street network change was reviewed with respect to its design and how it would affect ways of travel. The Hub Plan would complete protected bicycle facilities on 13th Street and provide a new protected bikeway on Duboce Avenue between Mission and Valencia streets. The signal at the intersection of Otis Street/Mission Street/Duboce Avenue/13th Street would be revised to separate westbound vehicles and people bicycling from 13th Street to Duboce Avenue from vehicles exiting the Central Freeway off-ramp at Mission Street and continuing westbound onto Duboce Avenue. These specific bicycle improvements would provide a higher level of security for people bicycling by physically separating them from vehicular traffic. The improvements would also include changes to enhance accessibility and safety for people walking. These types of street network improvements would increase the visibility of people walking for drivers and bicyclists and reduce vehicle speeds, as appropriate; be designed to accommodate bicyclists; and enhance conditions for bicycling; they would not create potentially hazardous conditions for people bicycling. Proposed travel lane changes on 12th and Stevenson streets as well as South Van Ness Avenue would not interfere with bicycle accessibility in the area because there are no bicycle facilities on these street segments, and bicyclists would continue to have access to these streets.

The impact analysis within Impact TR-7 also considered whether increases in traffic volumes with implementation of the Hub Plan could lead to increases in vehicle movements and speed or affect sight lines so as to create additional safety hazards or interfere with accessibility for bicyclists compared with existing conditions; however, traffic volumes in and of themselves, are not considered a potentially hazardous condition. Based on these assessments, the impact analysis within Impact TR-7 found that the Hub Plan's streetscape and street network changes, as well as the subsequent developments under the Hub Plan, would result in less-than-significant impacts on people bicycling. On Draft EIR pages 3.B-98 and 3.B-99, Impact C-TR-6, which provides the same analysis but under cumulative conditions, found that implementation of the Hub Plan, as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would result in less-than-significant cumulative impacts on people bicycling. Therefore, for the above reasons, the impacts of the proposed project on people bicycling would be less than significant.

In response to the commenter's concern regarding the safety of bicyclists traveling on Market Street between 11th Street and Octavia Boulevard, it is noted that the recently approved Better Market Street Project, which was included in the Draft EIR as a cumulative project, includes redesigning bicycle facilities on Market Street to place a bikeway on Market Street at sidewalk level, except at select locations between Valencia and 10th streets where the bikeway would be at street level. In addition, other elements of the Better Market Street Project, such as bicycle signals, two-stage bicycle left-turn queue boxes,³⁸ bicycle boxes,³⁹ and raised bicycle channels, will also enhance bicycle travel across and along Market Street within the Hub Plan area. A discussion of the Better Market Street Project's bicycle improvements within a cumulative context is presented in Impact C-TR-6 on Draft EIR pages 3.B-98 and 3.B-99.

The information in the Draft EIR is supported by substantial evidence, and no changes to the Draft EIR regarding walking/accessibility and bicycle impacts are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT TR-7: LOADING IMPACTS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-HVNA-10
- O-SOMCAN-20
- I-Walbourn-4
- I-Warshaw-5
- I-Warshaw-6
- I-Henderson-4
- I-Henderson-6
- I-Hestor (2)-2

³⁸ Two-stage bicycle turn-queue boxes offer bicyclists a safe way to make left turns at multi-lane signalized intersections from a right-side cycle track or bicycle lane or right turns from a left-side cycle track or bicycle lane.

³⁹ Bicycle queue boxes (bicycle boxes) are striped waiting areas for bicyclists, situated behind a crosswalk and in front of a motor vehicle stop bar. The motor vehicle stop bar is moved back 6 to 12 feet from the crosswalk to accommodate the bicycle box. Bicycle queue boxes allow bicyclists to move in front of a queue of motor vehicles when approaching an intersection in a bicycle lane during a red traffic signal and position themselves for through or turning movements at the intersection. When the traffic signal for the approach changes to green, bicyclists proceed first.

“E-commerce and TNC loading impacts are acknowledged to be significant, and city reports have shown TNCs are causing major congestion and traffic safety hazards. Yet in transport impactTR-8 (pp. 3.B-84-85) the DEIR declares that “there is no feasible mitigation to reduce this impact.” This is not true and some ideas for mitigation are provided below.

HVNA recommends specific mitigations for loading impacts:

1. Geo fencing TNCs and e-commerce delivery vehicles to ensure that the dense residential district is not swarmed by thousands of additional vehicles every day.
2. Provision of a ‘break-bulk’ transfer staging station under the Central Freeway to shift deliveries from large, bulky vans and trucks to a fleet of cargo bicycles or small pushcarts.
3. Provision of curbside taxi stands and loading areas on the perimeter of the residential district, with one to the south of the district (perhaps on South Van Ness) and one to the north of the district on Franklin and Oak Streets.” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-10]*)

“The report contradicts itself in terms of determining impacts to driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation when describing loading impacts under the Hub Plan. The following statements from the report speak to this point: “The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking. (Significant and Unavoidable);” “It is possible that an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading spaces, particularly for larger buildings that could be developed under the Hub Plan, could disrupt circulation for transit, vehicles, people walking and people bicycling, and create potentially hazardous conditions;” “The Hub Plan streetscape and street network improvements would not substantially change the existing on-street commercial loading supply within the parking and loading study area. There would be a net increase of five commercial loading spaces and four passenger loading spaces;” and “Some streetscape and street network improvements would include removal of on-street vehicular parking on some blocks, which may restrict the creation of new on-street commercial and/or passenger loading zones. Therefore, in some instances, subsequent development under the Hub Plan...may result in an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading spaces, which could disrupt circulation for transit, vehicles, people bicycling, and people walking and create potentially hazardous conditions” (pages 3.B-83 - 3.B-84). The report goes into more detail when discussing cumulative loading impacts and comes closer to acknowledging the reality of how TNCs operate by stating, “The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant

cumulative loading impacts (Significant and Unavoidable);” and “to the extent that loading demand associated with subsequent development under the Hub Plan is not accommodated onsite or within existing or planned on-street commercial loading spaces, double parking and the illegal use of sidewalks and other public spaces are likely to occur, with associated disruptions for transit vehicles, other vehicles, people bicycling, and people walking, and create potentially hazardous conditions” (pages 3.B-99 - 3.B-100). This all shows direct contradictions within the report itself regarding commercial and passenger loading zones, highlighting how driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation are not adequately studied in the report. Commercial and passenger loading spaces are used to justify many of the determinations around driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation, and this is directly contradicted in the report itself. This is a flaw of the report and shows further how the above areas of impact are not adequately studied.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-20]*)

“15,700 new residents; they if -- if only ten percent of them get a delivery of a meal a day, if only ten percent of them get a package a day -- and I'm talking now about the kinds of impacts that Nema talked about here from Uber and Lyft from package deliveries. We have some numbers available to us about the impacts, and they're not in here yet; and they need to be in the EIR. To have an additional 2,000 vehicles pulling up -- we don't have the street space to put that kind of numbers.” (*Tess Walbourn, August 29, 2019, [I-Walbourn-4]*)

“In terms of the adequacy of the report, just a couple examples. Page 3B-84, where they're talking about commercial and passenger loading, the conclusion is -- and a quote -- "There is no feasible mitigation to reduce this impact." Well, we know that the TNCs weren't accurately taken into account on that, and they've grown in mushrooms since then.” (*Jim Warshaw, August 29, 2019, [I-Warshaw-5]*)

“And this doesn't even begin to take into account the food delivery services. I've had conversations with some of the sponsors, and they talk about where UPS and FedEx can go in. And they think they've solved the problem with drop-off zones, but this is something that's not even on their radar. So that's a huge concern. We're not even playing catch up. We are more than reactive.

When you look at 98 Franklin, they're using a 30 percent drop-off rate. If anybody sees French American's student base, and they think that the same 30 percent that applies for all schools applies to French American, you have another thing coming. Thank you.” (*Jim Warshaw, August 29, 2019, [I-Warshaw-6]*)

“The loading. The statement made about the mitigation of the loading is that there is no feasible mitigation. There's very little analysis of loading. When you look at the technical documents about when you study loading, it's very old school -- like a UPS delivery coming in at 4:00 in the afternoon. Look, we know that there's all kinds of apps and services, and passenger and commercial loading is a huge -- it is going to swarm this area, and the document says there is no feasible mitigation. That's at 3B-46.” (*Jason Henderson, August 29, 2019, [I-Henderson-4]*)

“Metering. Zurich, Switzerland, the gold standard of transit does metering all around its city to control the flow of traffic. The loading can be dealt with by having a brake-bolt point outside of the area. Empty out the vance, put it on electric cargo bikes. You can geo-fence this area and keep it from being overwhelmed by the TNCs, and the people that live in these areas can walk a few blocks.” (*Jason Henderson, August 29, 2019, [I-Henderson-6]*)

“Second - tech business developed Apps - AND TESTED THEM INTENSIVELY IN SF. Short term rentals (Airbnb -headquartered south of Market) took over housing units and eliminated housing for SF workers. Transportation Network Companies/TNCs - with national headquarters in upper Market and Mission - exploded. They poured unregulated vehicles (with drivers unfamiliar with SF) onto City streets. PARTICULARLY "downtown" and in The Hub area.

In addition to Silicon Valley tech buses, Apps for private bus systems operated in SF competing for passengers with Muni. Lyft and Uber, also competing for passengers, clog the streets, slowing down Muni. All these vehicles pour onto SF streets, particularly in Hub area.

New, increasingly upper income, residents now get almost everything delivered to their homes. Trucks and private vehicles stopping "in front of door." Often using heavily travelled streets with MUNI lines trying to move rapidly down same street. Meals. Groceries. Toilet paper. Everything. The volume of traffic - on sidewalks, in trucks, on scooters, on bikes - to DELIVER goods to an INDIVIDUAL DWELLING - has exploded. The level of that delivery traffic is changing - and will keep changing even after this EIR is certified.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-2]*)

RESPONSE TR-7

Comments state that loading impacts were not adequately analyzed, contradictions are presented in the Draft EIR, and TNCs were not adequately addressed. Some comments raise concerns about no feasible mitigation measures being identified to address the significant loading impacts; others provide recommendations for mitigation measures. In addition, one comment raised concerns regarding student drop-off and pickup activities at the French American International School.

This response provides information and clarification regarding proposed project impacts related to commercial truck and passenger loading operations, as presented under Impacts TR-8 and TR-9 on Draft EIR pages 3.B-83 to 3.B-87 and Impacts C-TR-7 and C-TR-8 on Draft EIR pages 3.B-99 to 3.B-101. Commercial vehicle and passenger loading impacts were determined to be significant and unavoidable for the Hub Plan and less than significant for the individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

Loading Significance Criterion. The significance criterion for loading, as presented on Draft EIR page 3.B-37, states that a project would have a significance effect on the environment if it were to result in a loading deficit and the secondary effects of that deficit were to create potentially hazardous conditions for people walking, bicycling, or driving or substantially delay transit. This significance criterion was applied to the analysis of the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, the analysis of subsequent development under the Hub Plan, and the analysis of the Hub Plan's proposed streetscape and street network changes.

Loading Impact Assessment. A quantitative analysis of loading demand compared to proposed loading supply was conducted for the individual projects at 30 Van Ness Avenue and 98 Franklin Street, using available information on the type and amount of land use development and the proposed supply of commercial and passenger loading spaces. Commercial loading demand and the associated analysis are based on the peak hours of loading activities, which generally occur between 10 a.m. and 1 p.m. Surveys of loading activities conducted in 2017 as part of the department's updates to the SF Guidelines confirmed that peak demand for commercial loading space generally occurs during the morning hours between 10 a.m. and 11 a.m. and is substantially lower during the evening hours.⁴⁰ These surveys reflect activities associated with e-commerce, which have extended the duration of loading activities for residential uses during the evening hours. However, these activities (e.g., food deliveries), which may increase loading demand during evening hours, would not affect the analysis of the peak hour of commercial loading activities, which occur much earlier. The estimation of passenger loading space demand was based on a calculation of loading instances, including demand for taxis, TNC vehicles, and passenger loading during the peak 15 minutes of the peak hour.⁴¹

- **Individual Development Projects at 30 Van Ness Avenue and 98 Franklin Street.** For the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, the loading demand and supply for each of the two projects were assessed quantitatively to

⁴⁰ San Francisco Planning Department, *San Francisco Travel Demand Update: Data Collection and Analysis*, Fehr & Peers, June 2018, pp. 110 to 112.

⁴¹ Passenger loading demand was calculated by using the passenger loading methodology for taxis/TNCs as well as pickup/drop-off vehicle trip demand in Appendix F of the 2019 Transportation Impact Analysis Guidelines (see Appendix D for additional details).

determine whether the project would result in a loading deficit. The loading demand generated by these projects is presented in the Draft EIR on pages 3.B-50 to 3.B-52, while the impact assessment is presented under Impact TR-9 on Draft EIR pages 3.B-84 to 3.B-87. As stated on Draft DEIR pages 3.B-50 and 3.B-51, the passenger loading demand includes demand from taxis, TNCs, and other passenger vehicles. Therefore, the projects were designed to accommodate passenger loading activities associated with TNC vehicles, and TNC vehicles were considered in the loading analysis. For each project, the assessment includes a description of the proposed onsite and on-street commercial and passenger loading space supply and a comparison of the supply to the estimated loading demand. The proposed onsite and on-street loading facilities for both projects would be enough to accommodate the projected demand, and therefore, a secondary impact analysis is not required.

- **Hub Plan Streetscape and Street Network Changes.** The proposed streetscape and street network changes were assessed to determine if and how these changes would affect existing on-street curb regulations (i.e., parking spaces, loading spaces, passenger loading spaces). As stated in the Draft EIR on page 3.B-84, and summarized in a comment, with implementation of the streetscape and street network changes, there would be a net increase in the number of loading spaces, amounting to five commercial loading spaces and four passenger loading spaces. Therefore, the Hub Plan's transportation network changes would not result in a loading deficit, and a secondary impact analysis is not required.
- **Subsequent Development under the Hub Plan.** Subsequent development under the Hub Plan was qualitatively assessed because projects have not been proposed or designed; it is therefore not possible to determine whether these development projects would result in a loading supply deficit. With the proposed Hub Plan's rezoning and planning code changes, subsequent development projects in the Hub Plan area with more than 100,000 square feet of residential, commercial office, retail, and/or industrial uses would be required to develop and implement a Driveway and Loading Operations Plan (DLOP) to address project-generated commercial and passenger loading issues. The DLOP would require offsite commercial and passenger loading activity to be considered in the design of new buildings. Applicable projects would prepare the DLOP in accordance with guidelines issued by the department. The DLOP would be reviewed and approved by the department, in consultation with the SFMTA.

Subsequent development projects would also undergo design review as part of the project application process, similar to the design review conducted for the 30 Van Ness Avenue and 98 Franklin Street projects. As part of the design review for these subsequent development projects, commercial vehicle loading demand and passenger vehicle loading demand (e.g., taxis, TNCs, and other passenger vehicles) would be estimated. Each

development project would be required to identify onsite commercial loading spaces and on-street commercial and passenger loading zones in an attempt to accommodate total demand, including demand from taxis, private, TNC, food delivery, and furniture delivery vehicles as well as other vehicles. However, because of the nature of the Hub Plan (i.e., a rezoning effort and not a specific development project that has undergone design review), as stated in the Draft EIR on pages 3.B-83 and 3.B-84, it is possible that the design review for some subsequent development sites will find that off-street and on-street loading spaces may not be possible because of surrounding roadways or new curb-cut restrictions. Furthermore, it may not be possible for the project to provide on-street spaces, and existing loading spaces may not be located where needed to accommodate new demand, resulting in a loading deficit. It is possible that an inadequate supply of off-street commercial loading spaces and/or on-street commercial and passenger loading spaces, particularly at the larger buildings that could be developed under the Hub Plan, could disrupt circulation for transit and other vehicles, people walking, and people bicycling and create potentially hazardous conditions.

Because subsequent developments under the Hub Plan have not been proposed or designed, it is not possible to determine whether a specific subsequent development would result in a loading deficit due to curb-cut restrictions or the unavailability of on-street commercial or passenger loading spaces or whether a deficit would result in secondary effects that would create potentially hazardous conditions. Furthermore, until such developments are proposed or designed, it is not possible to develop mitigation measures to reduce or eliminate significant loading impacts of individual projects. Therefore, the secondary effects of the loading supply deficit could result in potentially hazardous conditions; loading impacts would be considered significant and unavoidable. The DLOP was included as part of the proposed rezoning action to increase the likelihood that both commercial and passenger loading would be accommodated by a specific project.

The conclusion that it is possible for subsequent development under the Hub Plan to result in significant loading impacts does not contradict the conclusion presented in Impact TR-6 related to walking/accessibility (Draft EIR pages 3.B-74 to 3.B-80) and Impact TR-7 related to bicycling (Draft EIR pages 3.B-80 to 3.B-83). As discussed in Response TR-6, above, the significance criteria for walking/accessibility and bicycling assess whether a project would include physical features that would be hazardous to people walking or bicycling or affect their accessibility. As noted in Response TR-6, although TNC vehicles are not specifically called out in the impact discussion, they were included as part of the vehicle traffic considered in the impact assessment (e.g., on study area roadways, at intersections, at proposed driveway locations, and at proposed onsite and/or on-street commercial and passenger loading facilities).

Suggested mitigation measures in the comments for addressing loading concerns related to TNCs and commercial deliveries, such as implementing geo-fencing, providing commercial and passenger loading zones outside residential core of the Hub Plan area, or relocating the commercial distribution system to under the Central Freeway, would not address the significant loading impacts related to the ability of subsequent developments under the Hub Plan to provide an adequate commercial and passenger loading supply and, therefore, would not change the loading impact analysis determination.

- **Geo-fencing of TNCs and Delivery Vehicles.** See Response TR-3 regarding the use of geo-fencing as a curb management strategy that restricts pickups within a designated geographic area to defined loading zones to prevent loading-related activities from blocking vehicular and/or bicycle traffic. Although this strategy may be appropriate at specific locations and address conditions at congested or sensitive locations, it would not provide an adequate commercial or passenger loading supply that would accommodate the loading demand generated by subsequent developments under the Hub Plan.
- **Break Bulk Station under the Central Freeway.** Suggested changes to the distribution system for commercial deliveries under the Central Freeway may not be feasible, and without a detailed design for such a facility, the environmental impacts cannot be determined. The Central Freeway runs over 13th Street/Duboce Avenue, a major east-west arterial for vehicles and bicyclists in this portion of the city. In addition, parcels under the freeway are not under the control of the City.
- **Taxi Stands and Loading Areas on Perimeter of Hub Plan Area.** Locating commercial and passenger loading zones outside the area would not serve demand generated by subsequent development under the Hub Plan, which would need to be accommodated at or in the immediate vicinity of the site. The SFMTA's Curb Management Team is working on developing a curb management strategy to guide their decision-making when it comes to allocating curb space to different uses. The strategy will include a framework for prioritizing different needs in different parts of the city. It will also include recommendations for legislative changes, internal SFMTA process improvements, and guidelines for the physical design of loading zones. The SFMTA Board of Directors is anticipated to review the strategy in early 2020. The Hayes Valley Parking and Curb Management Plan, which is scheduled for completion in the summer of 2020, includes the portion of the Hub Plan area north of Market Street and west of Van Ness Avenue. Although the primary purpose of the Hayes Valley Parking and Curb Management Plan is to address residential on-street parking, it will also address passenger and commercial loading, with a particular focus on Hayes Street.⁴²

⁴² San Francisco Municipal Transportation Agency, *SFMTA Hayes Valley Parking and Curb Management Plan*, <https://www.sfmta.com/projects/hayes-valley-parking-curb-management-plan>, accessed December 11, 2019.

Regarding the comment on pickup and drop-off activities at the French American International School, it was stated on Draft EIR page 3.B-87 that the school would continue to direct families to the existing loading area at 150 Oak Street for pickup and drop-off activities. The proposed 98 Franklin Street Project would not provide any school loading zones adjacent to the site for the 98 Franklin Street Project; therefore, the Draft EIR analysis evaluated only the net increase of (i.e., 60 students and five staff members) associated with the project. All student drop-off and pickup activities would continue to occur at the passenger loading area for the school at 150 Oak Street.

The comment does not provide information for the reference to a 30 percent drop-off rate for schools; however, it may be referring to the trip generation information included in Draft EIR Appendix D. Appendix D of the Draft EIR contains information regarding French American International School-related trips, which is based on a survey of the existing high school site (150 Oak Street). The projected trips are during the weekday p.m. peak hour, which is different from the school's peak hour of pickup/drop-off activity.

During the weekday p.m. peak hour, six of the 21 net new person trips generated by the 60 new students and five new staff members would be by automobile, which is an automobile mode share of 29 percent. On a daily basis, the automobile mode share for the net new trips by students and staff members would be about 39 percent. The majority of the new trips generated by the school would not occur during the p.m. peak hour because classes let out at around 3 p.m.; only about 32 percent of the new student trips and 50 percent of the new staff trips would leave the school during the p.m. peak hour. Of the six additional person trips by automobile during the p.m. peak hour, five would be student related and one would be staff related. Because students leaving by automobile during the p.m. peak hour would be picked up, the five student trips would result in a total of eight vehicle trips (assuming an average vehicle occupancy of about 1.25 students per vehicle, which equals four trips arriving at the school to pick up students and four trips leaving the school with students in the vehicles). The single staff trip would result in one vehicle trip leaving the school.

The information in the Draft EIR is supported by substantial evidence, and no changes to the Draft EIR regarding loading impacts are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in the comments will be transmitted to City decision makers for consideration during the project's approval process.

COMMENT TR-8: TRAFFIC CONGESTION

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- A-CHP-2
- I-Hestor (2)-11
- I-Hestor (2)-12

- O-HVNA-9
- O-NC-3

“However, due to the boundary of the project and the proximity to United States Highway 101 (US-101), Central Freeway, specifically the exit-ramps at Mission Street and Market Street, and the onramps at Market Street and S. Van Ness Avenue, the potential for increased traffic congestion exists.” (*California Highway Patrol, San Francisco Area, August 21, 2019, [A-CHP-2]*)

“Vehicles block intersections throughout the Hub area, interfering with pedestrians, Muni, bicycles and other cars. As thousands of new units are built in this area, the potential for congestion to ripple throughout SF is substantial.

Permanently assigned traffic control officers, with authority to issue tickets, and strong whistles to take control of traffic, are needed. Project approvals must be tied to on-going funding for enforcement + monitoring to ensure that people operate for years to come.

Mechanisms to ensure on-going payment for ENFORCEMENT - reporting annually in Budget process - defined with specificity to THIS area - to protect rapid movement of public transit and bicycles, safe movement of pedestrians on sidewalks and in crosswalks.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-11]*)

“When the Downtown Plan was passed in 1985, the assumptions IN THAT PLAN that new office workers would transition from driving cars to taking transit resulted in Code reporting requirement still in effect. The Hub proposes a massive amount of new housing - most of which will be high-cost housing in expensive towers. Monitoring traffic congestion, transit usage, air quality, volume of deliveries to buildings/condos, must be required. With regular reports REQUIRED to Planning Commission and BOS so that corrective measures can be adopted. (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-12]*)

“HVNA recommends specific mitigations for traffic impacts:

1. Rapid deployment of the proposal to restrict private automobiles on Market Street between 11th and 12th Street, and extending the restrictions west to Gough Street. Do not wait years to implement this. Do it now as preemptive mitigation for the Hub.
2. Conversion of 12th Street between Market and Mission/Van Ness into a car-free street
3. Deployment of traffic control personnel at chronically blocked pedestrian crossings such as Franklin/Page/Market to ensure pedestrians can safely cross streets.

4. Restrictions on private auto access at 98 Franklin to avoid traffic caused by students being dropped off or picked up by car.
5. Metering (using traffic signals) of private car and truck traffic through this area to avoid congestion and hazardous impacts on cyclists, pedestrians, and transit passengers” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-9]*)

“Then the problem with this EIR is, as I understand it, that the impact of rideshare has not been reflected in the EIR. So how could you possibly certify it if you do not have an impact -- if you don't have a feel for how many cars are going to be congesting this area. This is a very important area because everything goes through there, especially the lower Haight, Hayes Valley -- incredibly popular. A lot of people either go there that don't, actually, necessarily live there. I'm one of them. I frequently visit lower Haight on foot -- because I love that neighborhood -- and, you know, I couldn't imagine what kind of a disaster it's going to be for the people that are already living there -- not to mention that people aren't now going to be attracted to these towers.” (*The Neighborhood Council, Land Use Coalition, August 29, 2019, [O-NC-3]*)

RESPONSE TR-8

The comments raise concerns regarding traffic congestion and request specific mitigation measures. This response provides information and clarification regarding the analysis of transportation impacts. Specifically, it notes that traffic congestion was replaced by VMT as the metric for the analysis of transportation impacts.

As described in the Draft EIR on page 3.B-34, in March 2016, the Planning Commission unanimously approved a resolution for adopting changes under CEQA section 21099(b)(1) consistent with implementation of Senate Bill 743, including use of VMT as the metric for calculating transportation-related environmental impacts (see response to comments TR-1 Transportation Setting).⁴³ Therefore, traffic congestion, by itself, is no longer considered an environmental impact, and mitigation measures related to traffic congestion are not required. Other impacts related to traffic congestion are responded to elsewhere (e.g., transit delay).

⁴³ Impact TR-3 in the Draft EIR on pages 3.B-63 to 3.B-68 presents the VMT analysis. The Hub Plan as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street would not cause substantial additional VMT or induce automobile travel. VMT impacts were determined to be less than significant.

Concerns regarding possible increases in traffic congestion in the vicinity of U.S. 101 and the Central Freeway ramps, as well as within the Hub Plan area, are noted and will be passed along to the decision makers. For informational purposes, with respect to the specific request for some measures to address traffic congestion:

- Because mitigation measures related to congestion are not required, tying project approvals for subsequent development under the Hub Plan to funding for enforcement and monitoring of traffic congestion would not be appropriate.
- The Final EIR for the Better Market Street Project was certified by the Planning Commission on October 10, 2019 and the project was approved by San Francisco Public Works on October 11, 2019 and by the SFMTA on October 15, 2019. The Better Market Street Project, which was included in the Draft EIR as a cumulative project, will implement vehicle access restrictions along Market Street between Steuart Street and Octavia Boulevard. It is anticipated that the construction will occur in incremental phases, with phase one (between Fifth and Eighth streets) to begin in late 2020/early 2021. Vehicle access restrictions will occur in early 2020 prior to phase one construction eastbound between 10th and Main streets and westbound between Steuart Street and Van Ness Avenue. Access restrictions would be expanded eastbound between 12th and Drumm streets and westbound between Steuart and Franklin streets when future phases of constructions commence. The Better Market Street Project also includes various transportation network elements that will support and expand existing enforcement efforts along the Market Street corridor. Such efforts include signage and travel lane striping to reinforce turn restrictions and provide clear demarcation for vehicles, transit, bicyclists, loading, and parking. In addition, the Better Market Street Project will include the installation of additional closed-circuit television cameras at intersections along the project corridor. The cameras will be connected to the SFMTA's Transportation Management Center, allowing personnel to monitor traffic conditions and dispatch traffic enforcement officers to locations as needed.
- The Hub Plan proposes streetscape and street network changes on 12th Street to create wider sidewalks and encourage a more active landscaped environment for people walking. These changes were designed after considering the Better Market Street Project improvements on Market Street; the Van Ness BRT Project, which extends to Otis Street; the planned development projects, which would line 12th Street with active ground-floor uses and residential uses above; and the proposed street network changes on Otis Street between South Van Ness Avenue and Gough Street. For the planned development projects, 12th Street would be the primary vehicular access route to the project sites; therefore, vehicular access to 12th Street will need to be maintained. In addition, under the Better Market Street western variant, a private-vehicle access restriction would require any vehicles remaining on eastbound Market Street east of Gough Street to turn

right onto 12th Street. Therefore, making the one-block segment of 12th Street a car-free zone would not be feasible.

- The Better Market Street Project includes changes to the intersection of Franklin Street/Page Street/Market Street to improve circulation for people walking and bicycling at this intersection, including sidewalk level bikeways, and reduced crosswalk distances for pedestrians. These improvements will address existing conditions for people walking and biking at this intersection.
- As stated in the Draft EIR on page 3.B-87, the student drop-off area for the French American International School would remain on Oak Street, as under existing conditions. The school would continue to direct families to the loading area at 150 Oak Street for pickup and drop-off activities. The proposed 98 Franklin Street Project would not provide any school loading zones adjacent to the site for the 98 Franklin Street Project.

The transportation impact analysis is supported by substantial evidence, and no additional analysis or mitigation measures are required. No changes to the Draft EIR regarding traffic congestion are required; therefore, recirculation of the transportation and circulation section of the Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process. See Response TR-7 for a discussion of significant and unavoidable loading impacts.

COMMENT TR-9: ELECTRIC SCOOTERS

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-6
- O-SOMCAN-21

"Impact of electric foot scooters not studied." (South of Market Community Action Network, September 6, 2019, [O-SOMCAN-6])

"The report does not study the impact of electric foot scooters which is a flaw of the report. San Francisco has been a test-bed for electric foot scooters (starting in March 2018) with huge negative impacts to pedestrian safety, driving safety, bicycling safety, and the environment. Electric foot scooters, currently provided by companies such as Skip and Scoot, pose a significant risk to walking, driving, and bicycling hazards. These scooters are ridden illegally on sidewalks posing huge risks to pedestrians. Additionally, these scooters are ridden in bike lanes and on city streets in car lanes, increasing safety hazards for those riding the scooters, riding

bicycles, and driving in cars.

As reported in an August 8, 2109 VOX article, a recent study in the peer-reviewed journal *Environmental Research Letters* explains that electric foot scooters are worse for the environment than other modes of transportation, and are actually taking people away from otherwise using public transportation or walking; additionally, electric foot scooters rely on the use of automobiles to collect the scooters at night - so there is actually an increase in VMT impact and overall increase in driving/cars on the road impact as well - with the article stating "Scooters typically produce more emissions than a standard bus with high ridership, an electric moped, an electric bicycle, a regular bicycle, or a good old carbon-free walk."^{44,45} None of this is studied in the report and is a flaw of the report." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-21]*)

RESPONSE TR-9

The comments assert that electric scooters are excluded from the transportation analysis and that this is cause for concern, given the reported safety and sustainability implications of these devices. This response provides information regarding the analysis of electric scooters in the Draft EIR.

Scooter trips have travel sheds⁴⁶ (on average, areas within 1.25 miles)⁴⁷ similar to those of walking and biking trips. As noted in the SFMTA's recent mid-point survey for the scooter pilot program, scooter trips often replace trips that would have been made by walking and biking.⁴⁸ As documented in Table 3.B-8 of the Draft EIR on page 3.B-49, non-motorized trip generation in the Hub Plan area includes walking, bicycling, and other non-motorized modes (e.g., skateboards, scooters). The future of non-motorized ways of travel, including scooters, electric bicycles, skateboards, and other ways, will most likely change over the course of Hub Plan implementation. Therefore, the analysis accounts for some interchange in trip generation between non-motorized modes.

When following traffic laws, scooters operate similarly to bicycles. They move at a similar speed, averaging between 10 and 20 mph, and use bicycle facilities when available or the far

⁴⁴ See <https://www.vox.com/future-perfect/2019/8/8/20759062/electric-scooter-environment-climate-change-bird-lime>.

⁴⁵ See <https://iopscience.iop.org/article/10.1088/1748-9326/ab2da8>.

⁴⁶ *Sheds* are the geographic area that could be reached from a given point.

⁴⁷ National Association of City Transportation Officials, *Shared Micromobility in the U.S.*, 2018, <https://nacto.org/shared-micromobility-2018/>.

⁴⁸ San Francisco Municipal Transportation Agency, Appendix A, User Survey, https://www.sfmta.com/sites/default/files/reports-and-documents/2019/04/powered_scooter_share_mid-pilot_evaluation_appendices_final.pdf.

right side of the road when they are not available. For that reason, the use of scooters is assumed in the impact analysis for people bicycling, beginning on page 3.B-80 of the Draft EIR. The Hub Plan's streetscape and street network changes are designed to reduce pedestrian obstacles by providing a dedicated pedestrian through zone/access route that is clear of all vertical obstructions, reduce crosswalk distances, and provide dedicated and protected bicycle facilities that encourage bicyclists and people on scooters to use the facilities.

One comment cites a *Vox* article that discusses the environmental impact of electric scooters. The article ultimately finds that only a "standard bus with high ridership, an electric moped, an electric bicycle, a regular bicycle, or a good old carbon-free walk" are less impactful than an electric scooter. The *Vox* article also goes on to say that many scooter companies have indicated that they intend to produce "green" versions of their products by allowing them to be charged with renewable energy, redistributing scooters with electric vehicles, and reducing the collection and redistribution of scooters altogether. More than one-third of San Francisco scooter riders surveyed in early 2019 self-reported that their scooter trips replaced TNC trips. Another 8 to 10 percent said that they would have taken a taxi, motorcycle/moped, or personal vehicle.⁴⁹ Please see Response AQ-1 for additional information regarding emissions related to electric scooters.

The SFMTA has a scooter permit program that addresses many of the commenter's concerns. In April 2018, the board of supervisors passed legislation that had the SFMTA create a new pilot program to regulate electric scooters. The SFMTA Board of Directors passed its own legislation in May 2018, outlining the scope and scale of the pilot program. The SFMTA released the pilot permit application later that month. The SFMTA scored and selected scooter vendor applications, based on how they implement strategies to educate and train users regarding safe operations as well as their strategies for promoting and distributing helmets. The SFMTA issued permits to two vendors, which allowed a maximum of 625 scooters for each company in the first six months.

In July 2019, the SFMTA released the application for its Powered Scooter Share Permit Program. The Powered Scooter Share Permit Program takes the place of the original 12-month pilot program, which ended in fall 2019,⁵⁰ and incorporates lessons learned from the pilot program as well as the City's 18-month Stationless Bikeshare Permit Program.

The EIR non-motorized travel analysis is supported by substantial evidence, and no additional analysis or mitigation measures are required. No changes to the Draft EIR regarding electric scooters are required; therefore, recirculation of the transportation and circulation section of the

⁴⁹ Ibid.

⁵⁰ San Francisco Municipal Transportation Agency, *Powered Scooter Share Permit and Pilot Program*, <https://www.sfmta.com/projects/powered-scooter-share-permit-and-pilot-program>.

Draft EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

F. AIR QUALITY

The comments and corresponding responses in this section cover topics in Section 3.D, Air Quality, of the Draft EIR. These include topics related to:

- AQ-1: Air Quality Impacts

COMMENT AQ-1: AIR QUALITY IMPACTS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-7
- O-SOMCAN-22
- I-Walbourn-6
- I-Scocchera-5

"Air quality and wind impacts not adequately studied." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-7]*)

"Air quality impacts are not adequately studied in the report. TNCs are not adequately considered or studied in the report. The points made about TNCs as described in this comment letter under point #1 ("VMT impacts not adequately studied in the report") apply to increased air quality impacts by the plan that are not considered in this report. Also, the impacts to air quality due to electric foot scooters are also not considered in this report. As was stated earlier, the use of electric foot scooters rely on automobiles that are used to pick up scooters at night. The lack of study of impacts to air quality is a flaw of the report." (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-22]*)

"Particulate matter. The report -- the EIR Draft report talks about only sensitive communities in a very strange way, but fine particulate matter is of a concern to all of us residents and people visiting San Francisco. More needs to be looked at there." (*Tess Walbourn, August 29, 2019, [I-Walbourn-6]*)

“Are these construction sites monitored for dispersing toxic dust into the air? I have never seen any City personnel checking.” (*Richard J. Scocchera, August 26, 2019, [I-Scocchera-5]*)

RESPONSE AQ-1

Two of the comments state that air quality impacts are not adequately studied in the Draft EIR because the effect from TNCs was not accounted for in the emissions. Air quality emissions are partially calculated using the increases in vehicle trips from the transportation analysis. As described in further detail in Responses TR-2 and TR-3, TNCs were accounted for in the transportation analysis. Therefore, the air quality emissions presented in the Draft EIR does account for the effect from TNCs.

Another comment states that only sensitive communities were considered in the air quality analysis for particulate matter. Section 3.D, Air Quality, in the Draft EIR describes how sensitive receptors are defined in the air quality analysis. The air district defines sensitive receptors as facilities or land uses that include members of the population, such as children, the elderly, and people with illnesses, who are particularly sensitive to the effects of air pollutants. Examples include schools, hospitals, and residential areas. Land uses such as schools, children’s day care centers, hospitals, and nursing and convalescent homes are considered to be sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Residential areas are considered more sensitive to air quality conditions compared to commercial and industrial areas because people generally spend longer periods of time at their residences, with associated greater exposure to ambient air quality conditions. This definition of sensitive receptors includes a broad swath of the Hub Plan area, and the air quality impacts described in Section 3.D, Air Quality, would apply to all residents in the area.

One comment asks if construction sites are monitored for toxic dust in the area. San Francisco Health Code article 22B and San Francisco Building Code section 106.A.3.2.6 collectively constitute the Construction Dust Control Ordinance (adopted in July 2008). The ordinance requires all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or expose or disturb more than 10 cubic yards or 500 square feet of soil to comply with specified dust control measures, whether or not the activity requires a permit from the Department of Building Inspection. For projects greater than 0.5 acre within 1,000 feet of sensitive receptors (e.g., residences, schools, child care centers, and hospitals and other health-care facilities), as well as other receptors, as deemed necessary by the director of public health, the Construction Dust Control Ordinance requires the project sponsor to submit a dust control plan, with the goal of minimizing visible dust. The dust control plan must be approved by the San Francisco Department of Public Health prior to issuance of a building permit

by the Department of Building Inspection. Such larger projects must also identify a compliance monitor; that person must be available at all times during construction activities.

Building permits will not be issued without written notification from the director of public health to confirm that the applicant has a site-specific dust control plan, unless the director waives the requirement. The Construction Dust Control Ordinance requires project sponsors and the contractors who are responsible for construction activities to control construction dust on a site or implement other practices that would result in equivalent dust control and be acceptable to the director of public health.

Studies have shown that the application of best management practices at construction sites significantly controls fugitive dust.^{51,52} Individual measures have been shown to reduce fugitive dust by anywhere from 30 to 90 percent.⁵³ San Francisco's Construction Dust Control Ordinance requires a number of fugitive dust control measures to ensure that construction projects do not result in visible dust. Compliance with the Construction Dust Control Ordinance is the basis for determining the significance of fugitive dust emissions.

Compliance with the Construction Dust Control Ordinance ensures that fugitive dust emissions generated by projects during construction will neither:

- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in nonattainment status under an applicable federal, state, or regional ambient air quality standard; nor
- Expose sensitive receptors to substantial pollutant concentrations.

Finally, one comment states that air quality impacts from electric scooters and the emissions from vehicles that pick up scooters up at night are not addressed. The electric scooters themselves would not contribute to any air quality impacts because they are electric. Non-electric vehicles that pick scooters up at night and distribute them throughout the City would not represent a significant amount of additional cars on the road such that the air quality impacts presented in the Draft EIR would be affected. Please see Response TR-9 for additional information about electric scooters.

No additional analysis or change to the Draft EIR conclusions regarding air quality impacts is required; therefore, recirculation of the air quality section of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

⁵¹ Western Regional Air Partnership, WRAP Fugitive Dust Handbook, September 7, 2006, https://www.wrapair.org/forums/dejfdh/content/FDHandbook_Rev_06.pdf.

⁵² "Fugitive dust" is dust that is generated during construction and escapes from a construction site.

⁵³ Bay Area Air Quality Management District, Revised Draft Options and Justification Report, California Environmental Quality Act Thresholds of Significance, October 2009, p. 27.

G. WIND

The comments and corresponding responses in this section cover topics in Section 3.E, Wind, of the Draft EIR. These include topics related to:

- WI-1: Wind Impacts

COMMENT WI-1: WIND IMPACTS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-7
- O-SOMCAN-23
- I-Walbourn-2
- I-Hestor (2)-14

“Air quality and wind impacts not adequately studied.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-7]*)

“Wind impacts are not adequately studied in the report. The report states that wind impacts from the plan would be less than significant with mitigation, but continues stating that “Building articulation and landscaping features for subsequent development projects could eliminate the 11 net new hazard criterion exceedances that were identified in the Hub Plan condition. However, because these details have not been developed and cannot be known at this time, it is not possible to assess the effects that these specific design measures for future buildings may have on winds in the Hub Plan area and vicinity. Therefore...the Hub Plan could result in 11 net new exceedances of the one-hour per year hazard criterion, resulting in a significant impact” (pages 3.E-13 - 3.E-22). Further, cumulative impacts are identified in the report with regard to wind as significant and unavoidable with mitigation (page 3.E-36). This points to the clear need to have further study of wind impacts from the plan as the current study is inadequate. The current Market Street and Van Ness Avenue intersection is already an existing and known wind tunnel, something that is especially dangerous for seniors. Given the existing conditions of this area and the intensity of new development that is proposed (combined with increases in automobile, pedestrian, and bicycle traffic), wind impacts need further study.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-23]*)

“Just on the wind front, having more bike lanes is great, as long as the cyclists are not blown over.” (*Tess Walbourn, August 29, 2019, [I-Walbourn-2]*)

“Hub area has extremely high winds. Monitoring effects of construction of new buildings has been hit or miss since I forced issue on 10th & Market EIR done by OER for Redevelopment Agency. I brought up again on 50 Van Ness EIR. Env Review should act to get model - which can be updated with each new building - in its control. Required mitigation measure on EVERY building, funding to update model.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-14]*)

RESPONSE WI-1

The comments state that the Hub Plan area has very high winds, the wind impacts are not adequately studied at the plan level, and bicyclists are at risk from high winds. One comment states that wind effects around newly constructed buildings should be monitored, and mitigation should be included for a citywide wind model.

As stated in Section 3.E, Wind, additional wind tunnel testing at the plan level is not possible at this time because subsequent development projects that could be approved under the Hub Plan have not yet been designed. For that reason, a programmatic analysis was conducted, including a wind tunnel test at a programmatic level, and mitigation measures were included in the Draft EIR to require additional wind analysis for subsequent development projects to reduce their potential wind impacts, as needed. Implementation of Mitigation Measures M-WI-1a, Wind Analysis and Minimization Measures for Subsequent Projects, would avoid wind hazard exceedances and reduce the hours of wind hazard exceedances at a project-specific level through the identification of methods that comply with section 148, while implementation of Mitigation Measure M-WI-1b, Maintenance Plan for Landscaping and Wind Baffling Measures in the Public Right-of-Way, would require landscaping maintenance plans to ensure wind baffling in perpetuity. Therefore, impacts associated with buildout of the Hub Plan would be reduced to less than significant with mitigation (at a project-specific level).

Regarding the cumulative condition, compliance with section 148 would not guarantee that cumulative impacts would not result. The specific designs for subsequent reasonably foreseeable projects, when proposed, would be required not to exceed the wind hazard criterion specified in section 148. Building articulation and landscaping features for subsequent development projects could eliminate new exceedances of the hazard criterion. Although future project mitigation measures and design modifications would be based on a test of conditions at the time when future projects are proposed, using section 148 alone, they would not consider other foreseeable buildings in the area. Therefore, it cannot be stated with

certainty that each subsequent development project would not contribute to a cumulative impact without substantial modifications to individual project designs and programs. Therefore, these impacts would be significant and unavoidable with mitigation.

Bicycle lane locations in the Hub Plan area were analyzed for informational purposes but not included in the Draft EIR analysis. The CEQA significance criterion for wind focuses on whether a project would create wind hazards in publicly accessible areas of substantial pedestrian use. Wind speed data for bicycle lane locations were measured as part of the wind tunnel testing and reported for informational purposes in Appendix G-1 of the Draft EIR and as part of a separate technical background study in the administrative record for this project.

Regarding the City owning the wind model and including mitigation in every project to update the model, the independent consultants that perform wind analyses for the EIRs do so under the direction of department staff members. Although the model is not owned by the department, it is continually updated at the direction of department staff members to reflect appropriate baseline and future conditions for project-specific and cumulative project scenarios. This comment does not specifically raise issues with the adequacy of the analysis.

No additional analysis or change to the Draft EIR conclusions regarding wind impacts is required; therefore, recirculation of the wind section of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

H. SHADOW

The comments and corresponding responses in this section cover topics in Section 3.F, Shadow, of the Draft EIR. These include topics related to:

- SH-1: Shadow Impacts from Increases in Density

COMMENT SH-1: SHADOW IMPACTS FROM INCREASES IN DENSITY

This response addresses the comments from the commenter listed below; the comment on this topic is quoted in full below this list.

- O-YBNC-2

“The first legal flaw is the DEIR does not show any additional shadow impacts from projects using the SDB, neither the 18 upzoned properties nor all the rest – even though the DEIR assumes about 1/2 of future residential developments will in fact use the SDB, hence its projected 15% total increase in future housing units due to that.

In fact, the DEIR erroneously states on page 727:

“As discussed in Chapter 2, Project Description, the state density bonus program, as well as the City’s Affordable Housing Bonus Program (codified in Planning Code section 206), would be applicable in the Hub Plan area. This would result in the potential for added height for affordable housing projects. However, the locations where project sponsors might use the state or local density bonus programs are not known. Although these bonus programs permit an increase in residential density beyond that otherwise allowed, and enable project sponsors to request waivers or modifications with respect to planning code requirements, including height limits, they do not exempt subsequent projects from being subject to CEQA review. Therefore, pursuant to state density bonus law, any project for which additional height is requested would be evaluated further under CEQA.”

But in fact, use of the SDB is not limited to “affordable housing projects” only. Any residential project can use it. And certainly if 1/2 of future projects do use it, then the overall shadow impacts could cumulatively be very much greater than those presented in the EIR. Furthermore, as the EIR notes the locations of future SDB projects is unknowable, so the only safe way to project such potential impacts is to assume every project takes full advantage of a potential 35% height limit increase, as if all area height limits were increased that much, in both the No Project and the Proposed Project Alternatives. This is a simple diagram to prepare, and the potential impacts are so much more than the DEIR’s estimates that deferring such analysis to future case-by-case studies is grossly inadequate – and in fact seriously misleading. The shadow impact consequences of the upzoning plus use of the SDB may be so negative that that factor alone strongly argues against the upzoning itself overall. This information MUST be available to the decision makers at this time to be relevant to public decision making processes at any time ever.” (*The Yerba Buena Neighborhood Consortium, August 29, 2019, [O-YBNC-2]*)

RESPONSE SH-1

The comment states that shadow impacts from future projects that use the state density bonus program are not adequately studied and that cumulative impacts would be more severe than what is presented in the Draft EIR. The Draft EIR concluded that implementation of the Hub Plan would result in significant and unavoidable shadow impacts at the program level and in a cumulative context. As stated in Section 3.F, Shadow, it would be too speculative to state which sites would elect to use the state density bonus program. Since publishing the Draft EIR, the department proposed amending the code to require project sponsors to seek a San Francisco Planning Code section 309 exception if proposing a project with a height greater than that permitted under the existing zoning *and* the site is one of the 18 analyzed in the EIR. As a result of this proposed amendment to the code, sponsors for projects at the 18 parcels studied could propose projects only up to the maximum heights analyzed in the Draft EIR.

All future projects under the Hub Plan (not including 30 Van Ness Avenue, 98 Franklin Street, or projects that would qualify under the HSD) would be required to undergo separate CEQA review, at which time project-level and cumulative shadow impacts would be evaluated for the projects, which may include the state density bonus. Furthermore, future projects approved under the Hub Plan would be required to comply with Planning Code section 295, which would effectively limit shadow impacts on some City parks. Section 295 requires City decision makers to adopt specific findings before approving buildings greater than 40 feet in height that would shade a property under the jurisdiction of or designated to be acquired by the San Francisco Recreation and Park Commission during the period from one hour after sunrise to one hour before sunset. Compliance with section 295 would reduce shadow impacts from future projects approved under the Hub Plan.

No additional analysis or change to the Draft EIR conclusions regarding shadow impacts is required; therefore, recirculation of the shadow section of the EIR is not required. The concerns raised in the comment will be transmitted to City decision makers for their consideration during the proposed project's approval process.

I. ALTERNATIVES

The comments and corresponding responses in this section cover topics in Chapter 5, Alternatives, of the Draft EIR. These include topics related to:

- AL-1: Alternatives

COMMENT AL-1: ALTERNATIVES

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- A-HPC-2
- A-HPC-3
- O-YBNC-3
- O-SOMCAN-29

“The HPC agreed that the DEIR analyzed an appropriate range of preservation alternatives to address historic resource impacts. The HPC expressed a preference for Alternative C, the Hub Plan Reduced Intensity Alternative.” (*Historic Preservation Commission, August 20, 2019, [A-HPC-2]*)

“The HPC supported the mitigation measures described in the DEIR.” (*Historic Preservation Commission, August 20, 2019, [A-HPC-3]*)

“The second legal flaw is that a very plausible Alternative – without any upzoning but including the attractive streetscape and other public realm improvement programs – is never even identified and evaluated. This certainly appears to be a bad faith manipulation of the CEQA process to intentionally deny decision makers the opportunity to consider that viable Alternative. Instead, in order to get the desirable public realm improvements they must also go along with the upzoning too, like it or not.” (*The Yerba Buena Neighborhood Consortium, August 29, 2019, [O-YBNC-3]*)

“The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District DEIR is inadequate and does not study the full impacts of the proposed changes. The DEIR must be revised to address these critical flaws as outlined above.

As described in the report, p. 1-2 "CEQA requires that the lead agency neither approve nor implement a project unless its significant environmental effects have been reduced to less-than-significant... If the lead agency approves a project that would result in the occurrence of significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must state the reasons for its action in writing, demonstrate that its action is based on the EIR or other information in the record, and adopt a Statement of Overriding Considerations" (page 1-2). The report also states "Alternatives Considered But Rejected: In developing the Hub Plan...the project sponsors considered multiple alternative concepts/designs for development of the project area and the project sites within it...The department reviewed these alternative concepts as potential strategies for reducing or avoiding the significant adverse impacts that were identified for the Hub Plan" (page 5-75).

No Project Alternative was studied or presented that actually meets the needs of working-class families and immigrants in the South of Market. Instead of planning for increased gentrification and displacement, what instead must occur is a community-led and community-based planning process that places as the priority existing community needs, especially the needs of those who have the least economic and political power. Such an alternative would take into account the needs of the existing community specifically regarding affordable housing and the stabilization of existing affordable housing, and would reduce the environmental impacts presented by the current plan. The Hub Plan must be revised to reflect this and a Project Alternative must be provided that meets these community needs.

The report and stated mitigations are insufficient. Another Project Alternative that has not been yet presented, such as the one described above, must be adopted in order to more fully mitigate environmental impacts, or a Statement of Overriding Considerations must be presented.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-29]*)

RESPONSE AL-1

Two comments stated that the Draft EIR analyzed an appropriate range of preservation alternatives; stated a preference for Alternative C, the Hub Plan Reduced Intensity Alternative; and provided support the mitigation measures described in the Draft EIR. The commenter’s support for Alternative C is noted. The Planning Commission will formally select either the proposed project or an alternative at the EIR certification hearing, reject the EIR, or send it back to the department with other direction.

One comment states that an alternative that includes only the streetscape and street network improvements, with no upzoning, should have been included. A second comment suggests that an alternative that meets the needs of working-class families, immigrants, and the community through affordable housing, including the stabilization of existing affordable housing, while reducing the environmental impacts of the current plan should have been included.

CEQA Guidelines section 15126.6(a) provides that “[a]n EIR need not consider every conceivable alternative to a project.” Under the “rule of reason” governing the selection of the range of alternatives, an EIR is required “to set forth only those alternatives necessary to permit a reasoned choice” (CEQA Guidelines, section 15126.6[f]). Although an EIR must consider a reasonable range of potentially feasible alternatives, it does not need to identify and analyze alternatives that fail to meet a project sponsor’s basic objectives, nor does it need to discuss every possible variant or permutation of alternatives or alternatives that fail to reduce or eliminate significant impacts of a project. The alternative suggested by the commenter, with only streetscape and street network improvements, would not meet the basic objectives of the Hub Plan (i.e., create a vibrant mixed-use neighborhood, maintain a strong preference for housing as a desired use, encourage residential towers on selected sites). In addition, the alternative suggested by the other commenter would be attempting to address socioeconomic effects, which are not addressed under CEQA if no adverse physical environmental impacts would occur. For these reasons, these alternatives were not included in the Draft EIR.

No additional analysis or change to the Draft EIR conclusions regarding alternatives is required; therefore, recirculation of the alternatives section of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project’s approval process.

J. GENERAL COMMENTS

The comments and corresponding responses in this section cover general subjects not directly related to a specific section of the Draft EIR. These include topics related to:

- GC-1: Provide Project Information or Hard Copies
- GC-2: General Concerns Not Related to Project Impacts or the Adequacy of the Draft EIR
- GC-3: General Comments Describing the Project, Describing the Commenter’s Role, or Expressing an Opinion
- GC-4: General Comments in Support of the Project and the EIR
- GC-5: General Comments in Opposition to the Project
- GC-6: General Effects from Citywide Construction
- GC-7: Structure of the Draft EIR and the CEQA Process
- GC-8: General Comments on Mitigation Measures
- GC-9: General Comments on Non-CEQA Issues
- GC-10: General Comments on Cumulative Projects

COMMENT GC-1: PROVIDE PROJECT INFORMATION OR HARD COPIES

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- I-Bowermaster-1
- I-Miles-1
- I-Phillips-1
- I-Scocchera-1

“Would you please email me the plans for this project?” (*Dan Bowermaster, August 15, 2019, [I-Bowermaster-1]*)

“I request a hard copy of the Hub Draft Environmental Impact Report. Please send the copy to me at my above return address.” (*Mary Miles, July 31, 2019, [I-Miles-1]*)

“My iPad doesn’t have the space to download documents like DEIR’s so you you snail mail a copy to: Marvis J. Phillips, Board Chair, District 6 Community Planners, 230 Eddy Street, #1206, San Francisco, Ca 94102-6526, thank you.” (*Marvis J. Phillips, July 25, 2019, [I-Phillips-1]*)

“Can you verify that the public hearing for this project is Thursday 8/29/2019? Is there a specific time? The flyer says that it will be some time after 10:00 a.m., which is very vague. Is there any chance that this hearing will be postponed, or will it definitely be held on Thursday?” (*Richard J. Scocchera, August 26, 2019, [I-Scocchera-1]*)

RESPONSE GC-1

The comments consist of requests for project plans, hard copies of the Draft EIR, or confirmation regarding the public hearing date. All requests and inquires were responded to by department staff members through email, and hard copies were provided when required. No further action is required.

No additional analysis or change to the Draft EIR conclusions or information regarding public disclosure is required; therefore, recirculation of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project’s approval process.

COMMENT GC-2: GENERAL CONCERNS NOT RELATED TO PROJECT IMPACTS OR THE ADEQUACY OF THE DRAFT EIR

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- A-Caltrans-1
- O-YBNC-4
- O-CCCBD-2
- O-SFHAC-1
- O-NC-1
- I-Goodman (1)-2
- I-Goodman (1)-3
- I-Goodman (1)-4
- I-Goodman (2)-1
- I-Hestor (2)-1

- I-Hestor (2)-3
- I-Hestor(2)-4
- I-Hestor (2)-5
- I-Hestor (2)-6
- I-Hestor (2)-15
- I-Hestor (2)-17
- I- Hestor (1)-4
- I-Walbourn-7

“The DEIR indicates that a portion of South Van Ness Avenue (US 101) is proposed for improvements within and outside existing state right of way. In addition, several city surface streets, a portion of which are within existing state right-of-way (ROW) under US 101, are also proposed for improvements.

Please be advised that any work or traffic control that encroaches onto the State ROW requires a Caltrans-issued encroachment permit. To obtain an encroachment permit, a completed encroachment permit application, environmental documentation, six (6) sets of plans clearly indicating the State ROW, and six (6) copies of signed, dated and stamped (include stamp expiration date) traffic control plans must be submitted to: Office of Encroachment Permits, California DOT, District 4, P.O. Box 23660, Oakland, CA 94623-0660. To download the permit application and obtain more information, visit <https://dot.ca.gov/programs/traffic-operations/ep/applications>.” (*California Department of Transportation, September 9, 2019, [A-Caltrans-1]*)

“While not a CEQA issue, it must also be noted that in exchange for the significant increase in property values resulting from the upzoning of 18 properties there is no increase at all in affordable housing requirements, nor application of any new fees, etc., beyond existing Market/Octavia Plan requirements for public and community benefits, such as a new Community Facilities District, etc.

Hence this plan if adopted will create instant windfall land profits for those lucky 18 owners. Essentially that part is a sweetheart spot zoning plan. Who owns these properties?” (*The Yerba Buena Neighborhood Consortium, August 29, 2019, [O-YBNC-4]*)

“My only concern is that the EIR does not really mention the Van Ness Market transit station. The -- it appears that the development proposals that have been submitted are not going to try, as private developers, to redo the entrance, which I had hoped they might do; because that would make for much more pleasant access to the station.

So I'm hopeful that the -- I think the concrete or stone entranceways there all need to be replaced. They are a very old-style 1970s way of doing it. Public Works, in the past, has worked with BART and replaced those with a fence-like structure, which is transparent, makes them safer, and graffiti can't be put on them. So I want to make sure that there's nothing in this EIR that would make doing that require further environmental review.

Likewise, the internal part of the station may -- as we go along, needs to be modified to include the entrance and access to the train. And I want to make sure that the EIR covers that or, in no ways, impedes that happening." (*Civic Center Community Benefits District, August 29, 2019, [O-CCCBD-2]*)

"Good afternoon, Commissioners. Corey Smith on behalf of San Francisco Housing Action Coalition.

You know, I saw this really, kind of, crazy tweet from a New York Times reporter yesterday that says the city of Moscow right now has 21 tunnels being dug out for underground subway stations, and that 80 stations have opened since 2010. I mean, we're constantly proposing expanding MUNI and just trying to get more improved MUNI. They've opened 80 stations in a decade, which is just remarkable and -- oh, I only have 30 seconds." (*San Francisco Housing Action Coalition, August 29, 2019, [O-SFHAC-1]*)

"Good afternoon, Commissioners. Ozzie Rohm with The Neighborhood Council in San Francisco, Land Use Coalition.

So we're always for intelligent design and intelligent development, but it looks like we're putting the cart before the horse." (*The Neighborhood Council, Land Use Coalition, August 29, 2019, [O-NC-1]*)

"The solution on the BRT to link south of van-mess down to Cesar Chavez and loop over to SFGH linking 3 hospitals CPMC, St. Luke's and SFGH would provide a much needed system that can connect to the mission bay hospital as well meaning 4 hospitals, inclusive of staff being able to get from one to another in a simple loop system. Its not rocket science, its a basic connect the dots approach to transit hub, loop and linkages that I have emailed SFMTA staff and city agencies on prior." (*Aaron Goodman, August 27, 2019, [I-Goodman (1)-2]*)

"Why we cannot get solutions for the HUB prior to the SOTA site moving downtown, or any other facility opening (see the music center being built) or another tower in progress including the city agencies on Van Ness and Mission." (*Aaron Goodman, August 27, 2019, [I-Goodman (1)-3]*)

“The transit and increase at such a major two intersections Van Ness and Market and Van Ness and Mission even down to the interchange and freeway onramps requires a more birds-eye-view and solutions that will solve for the future transit needs. The Van Ness corridor could have been an LRV extension down from the T/F line extensions, and routing more people down Van Ness to Cesar Chavez and Mission Bay...” (*Aaron Goodman, August 27, 2019, [I-Goodman (1)-4]*)

“See attached pdf shows the route.... for the HUB Would link the CPMC, St. Luke's and SFGH with a reconnect to the T-Line... or shoot it up Potrero and south to Bayshore to provide a secondary north south link to San Bruno ave and Brisbane.... think it out, its not rocket science, and the links/loops/connections will get people out of cars and onto public transit lines.... Tax Uber/Lyft and development to pay for it...” (*Aaron Goodman, September 3, 2019, [I-Goodman (2)-1]*)

“The Hub planning area has been subject of 2 previous Area Plans developed with extremely different assumptions from now in 2019. The Hub Plan and consideration of these project must understand those assumptions.

Downtown Plan was adopted in **1985** after several years of planning and extensive community involvement. The DTP changed the ZONING south of Market St from **industrial** to various C-3 districts. Both sides of Mission Street and the blocks south to King were zoned industrial. C-3-O expanded south of Market St to C-3-0(SD) to include New Montgomery and 2nd. C-3-G area east of Van Ness/SVN allowed other uses, but was basically light industrial uses, non-profits, wholesale, small scale businesses. Not office or market rate housing. **1650 and 1660 Mission**, and area surrounding was zoned industrial.

DTP zoning added space for new offices, but Planning Code required that projects helped fund construction of **new housing** for the **expanded work force**. In 1985 existing housing in SF was available and basically affordable to existing SF workforce. **BART** opened in 1984 and had its own stream of funding. **Muni** had developed a bus network that moved people to downtown. **Muni Metro** was under construction. DTP assumed to have dramatic shift away from Bay Bridge auto commuters onto transit. Caltrain, SamTrans, GG Transit, BART provided transit to workers who wanted to live outside SF.

Due intense public pressure Supervisors required commercial developers to fund new housing with goal of being available when new office building opened. Transit fees would go to MUNI to expand/maintain service. **Redevelopment** areas fronted the waterfront along Embarcadero Freeway. Those areas were required to build a significant portion of affordable and work force housing.

After **1989** Loma Prieta earthquake the Embarcadero Freeway came down and freeway connections in Market Octavia bordering the Hub, changed dramatically.

When Market Octavia Plan passed in 2008, SF and US were in recession. Market Octavia and Eastern Neighborhoods area plans provided for extensive new housing. But housing prices had not yet soared out of reach of average SF worker.

Tech boom in Silicon Valley and south of Market began occurring AFTER **adoption of M/O and EN Area plans**. Two changes from tech boom had significant effects on **housing and transportation circulation** affecting Hub Area.

San Mateo and Santa Clara tech businesses began running **private buses** into San Francisco to connect their workers to San Francisco housing. Dumping the demand for housing from SILICON VALLEY businesses ONTO SAN FRANCISCO. Neither county had built housing commensurate with demand for housing for tech business workers. Unlike San Francisco which for 3 decades had been requiring developers of new commercial space to pay fees to develop additional affordable housing. Since the tech work force was generally well paid, often while waiting for their IPO, they were able to out-bid many SF workers. *Who now could not afford housing in the City where they worked.*" (Sue C. Hestor, September 9, 2019, [I-Hestor (2)-1])

"And the workers for all the Apps and TNCs need housing - *at lower income levels.*" (Sue C. Hestor, September 9, 2019, [I-Hestor (2)-3])

"Neither the Downtown Plan, Market-Octavia Plan, Eastern Neighborhoods Plan contemplated - or had planned for - the current shortage of workforce housing or street congestion - for The Hub area." (Sue C. Hestor, September 9, 2019, [I-Hestor (2)-4])

"When the Downtown Plan was developed, even when Market/Octavia and Eastern Neighborhoods Area Plans were adopted, each Plan assumed the SF workforce would be able to afford to live in the City. They could take Muni, walk or bike to work. DEIR 1-4 pontificates that focus of CEQA is on physical environmental effects - not on *social and economic effects*.

Conditions for SF housing have deteriorated rapidly in the past 15 years. Existing housing is taken off the market by short term rentals, owner move-ins and other ways that removes rental housing. As Silicon Valley dumps its workers, and as the new SF, often tech, work force pushes up prices for housing." (Sue C. Hestor, September 9, 2019, [I-Hestor (2)-5])

"Hotel workers, workers in tourist industry, retail workers, App delivery people are forced out of San Francisco, many to areas without developed transit systems, just to find housing they can afford. **SPRAWL** - even if worker drives dozens of miles to a BART station, then takes transit into SF - has *physical environmental effects* throughout the region as housing pushes out.

Drivers for Lyft and Uber DRIVE THEIR CARS INTO SAN FRANCISCO and spend their entire time driving around on City streets. Increasing air pollution and congestion. Other vehicles are delayed and themselves increase air pollution.

Greatly expanding affordability level of new housing, reduces environmental harm by allowing increased portion of SF workforce to live and work in San Francisco." (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-6]*)

"Construction of a new private high school, presents a unique opportunity, to this area. Particularly one which has K-8 school on other side of Hub boundary where its students are HEAVILY driven to school and picked up every day. Worsening congestion and air pollution. And climate change. Global warming is not an abstraction for young people. They will live with the consequences of congestion and air pollution causing climate change. Greta Thunberg from Sweden is not the only young person concerned about global warming. And challenging people to take measures to drastically reduce things that warm the planet. Young people and others concerned about global warming - and its effects on SF, sea level rise, and a changing climate." (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-15]*)

"In the case of the school, the students should be encouraged to get to and from school by walking, bicycling, taking Muni. They should be educated on the effect of private autos delivering and picking up students to school, worsen congestion as well as deteriorate air quality. So that they can educate others. How they get to and from school will have an effect on the environment and slowing down the rate of global warming.." (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-17]*)

"The Market & Octavia Plan was -- the Eastern Neighborhoods Plan was done in 2008. The Downtown Plan was done in 1985. I will have a lot of written comments. I hope you do, too." (*Ms. Hestor, August 29, 2019, [I-Hestor (1)-4]*)

"I'd, also, like to point you to Alternative C, the most environmentally friendly of the alternatives, as described by the drafters here. So we've got more work to do." (*Tess Walbourn, August 29, 2019, [I-Walbourn-7]*)

RESPONSE GC-2

Several comments pose general concerns about the project that are not related to CEQA. Other comments are general concerns regarding the proposed project or the analysis in the Draft EIR but do not identify any particular deficiencies in the analysis or conclusions of the Draft EIR regarding the physical environmental impacts of the proposed project. Other comments are introductory in nature or do not present specific issues related to the proposed project or the Draft EIR. Specific comments that relate to the adequacy of the information and analysis in the Draft EIR are addressed in the responses under each topical subsection. Many comments are general and do not present new information that would require changes or updates to the analysis provided in the EIR. Pursuant to CEQA Guidelines section 15088(c), general comments that do not contain or specifically reference readily available information may receive a general response. The impacts and mitigation measures identified in EIR Chapter 3 and the initial study are summarized in Summary chapter of the EIR. That chapter provides an overview of (1) the environmental impacts that could occur as a result of the proposed project or alternatives, (2) the level of significance of the environmental impacts before implementation of any applicable mitigation measures, (3) mitigation measures that would avoid or reduce significant environmental impacts, (4) improvement measures that would reduce less-than-significant impacts, and (5) the level of significance for each impact after implementation of the mitigation measures.

Many comments express general topic concerns that are not relevant to the CEQA analysis provided in the EIR. One comment serves as a reminder to obtain a California Department of Transportation– (Caltrans-) issued encroachment permit if entering the state right-of-way. If required, the project would obtain this permit. Increased traffic congestion caused by commuters and TNCs, as well as a general need for transit improvements not associated with the project, intelligent design and development, and redevelopment from past area plans not associated with the project, is not the focus of CEQA, which calls for determining whether a proposed project's physical changes to the environment could result in adverse physical impacts. Concerns regarding increased VMT, traffic, and impacts on air quality are covered in EIR Section 3.B, Transportation and Circulation; Section 3.D, Air Quality; and Responses TR-2 and AQ-1, above. General concerns regarding increased greenhouse gas emissions and climate change are covered in initial study Section E.9, Greenhouse Gas Emissions, starting on page E.9-1. Socioeconomic concerns and the need for more affordable housing are not analyzed under CEQA.

A commenter's suggestion to provide BRT service that would link four hospitals (i.e., California Pacific Medical Center [CPMC] Van Ness hospital, CPMC St. Luke's hospital, Zuckerman General Hospital, and the hospitals at Mission Bay) is noted. Transit service changes, such as those described by the commenter, are outside of the scope of the proposed project. Regarding

the comment about improvements to the Van Ness station, as stated in EIR Section 3.B, Transportation and Circulation, the San Francisco Municipal Transportation Agency is currently conducting a station capacity study at the Van Ness station. The study will help agency personnel determine potential improvements for the station. These improvements are not related to the Hub Plan; however, the Van Ness Station Capacity Improvement Project was included in the cumulative analysis. It is noted that the Van Ness Station Capacity Improvement Project will be completed in 2021, shortly after the other projects along the corridor referenced by the commenter are completed (e.g., the San Francisco Conservatory of Music Bowes Center and the City office building in mid-2020).

One commenter questions why solutions for the Hub Plan will not be in place prior to the Ruth Asawa School of the Arts moving downtown. Currently, the department does not have a project application on file for such a project; therefore, this project is not considered reasonably foreseeable for purposes of CEQA. South of the BRT segment on South Van Ness Avenue, both the 14 Mission and the 49 Van Ness Mission routes will continue within the existing transit-only lanes on Mission Street that extend past Cesar Chavez Street.

The comments regarding general matters do not present any evidence that the analysis in the Draft EIR is inadequate. No additional analysis or change to the Draft EIR conclusions is required; therefore, recirculation of the EIR is not required. The general concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT GC-3: GENERAL COMMENTS DESCRIBING THE PROJECT, DESCRIBING THE COMMENTER'S ROLE, OR EXPRESSING AN OPINION

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- A-CHP-1
- O-HVNA-1
- O-TNDC-1
- O-SOMCAN-1
- O-SOMCAN-3
- O-FAIS-2
- O-IA-1
- O-IA-2
- I-Walbourn-8

- I-Warshaw-3
- I-Henderson-1

“I reviewed the Market Octavia Plan Amendment (formerly The Hub), along with the Draft Environmental Impact Report (DEIR), specifically Chapter 3B – Transportation and Circulation, and consulted with Lead Agency Staff Contact, Ms. Elizabeth White. No impact to the San Francisco Area’s local operations and or public safety by SCH #2018052060 was identified.” (*California Highway Patrol, San Francisco Area, August 21, 2019, [A-CHP-1]*)

“Thank you for the opportunity to comment on the Draft EIR for the Hub. Several members of HVNA provided comments at the Planning Commission hearing on August 29th. These are HVNA Transportation and Planning Committee’s written comments regarding the adequacy of the EIR. We also provide mitigations that strengthen the Hub plan and reduce harmful impacts.” (*Hayes Valley Neighborhood Association, September 9, 2019, [O-HVNA-1]*)

“On behalf of Tenderloin Neighborhood Development Corporation (TNDC), I write to express our thoughts on the DEIR for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District.

For over 30 years, TNDC has been preserving and rehabilitating existing buildings in the Tenderloin, SOMA and surrounding neighborhoods, which have historically served low-income and working-class communities. TNDC operates affordable housing in these neighborhoods, and we work with community stakeholders to understand their concerns and raise public awareness on issues that affect their quality of life.” (*Tenderloin Neighborhood Development Corporation, September 6, 2019, [O-TNDC-1]*)

“We respectfully submit this comment letter on The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District Draft Environmental Impact Report, which encompasses the eastern portion of the existing Market and Octavia Area Plan. The Hub Plan amendment to the existing area plan is concentrated mainly in the western portion of the South of Market, also going north across Market Street.

The South of Market Community Action Network (SOMCAN) is a multi-racial community based organization that directly organizes and serves working-class immigrant communities in the South of Market, with a focus on children, youth, families, and seniors. SOMCAN works with residents and community members to collectively impact and direct the trajectory of land use and planning in the South of Market in a way that will benefit instead of negatively impact their community. This work involves challenging the consecutive waves of gentrification and

displacement that have struck the South of Market. Our work aims to build equity, as well as social and economic justice in the South of Market.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-1]*)

“Below are comments regarding The Hub, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District Draft Environmental Impact Report. The Draft Environmental Impact Report shall be referred to as “the report,” and the Hub Plan as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street shall be collectively referred to as “the plan.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-3]*)

“We had some other speakers here today who were going -- parents who were going to speak to their children's experience. They had to go pick them up from school, so you are left with me.

Our school moved to Hayes Valley in 1997 -- obviously, a different place at the time -- and we are now part of a vibrant, urban landscape. We can could be the good citizens and neighbors. We have a robust scholarship program for various students. And since moving in in 1997, we've outgrown our original building and developed a number of new facilities, including our arts pavilion at 66 Page and our preschool at 1155 Page. We've always believed that International High School should have it's own home.

The school has been hoping to build a new facility since we acquired the site seven years ago, but due to construction costs rising dramatically, they have risen over 50 percent since 2012. That has not been economically capable for our school. The proposed height increase in the Hub makes the project possible for us.

The city's decision to try to up-zone the Hub and to create more housing near transit has enabled us to move forward with a mixed-use project, which we think benefits many agencies. We're seeing more and more of our own school families moving in the neighborhood, and we're hopeful that the project completion of two- and three-bedroom homes might support additional families as well.

We believe this kind of vertically integrative, mixed-use development, which is the first of its kind in San Francisco, is the future of intelligent land use.

We're, also, entirely supportive of meeting the city's affordable housing approval, and we have employees and families who have taken advantage of those programs. With the Draft EIR now extensively studied, and given that costs have continued to rise, we hope the commission will move to certify it as quickly as possible to benefit current and future generations of students and San Franciscans.” (*French American International School, August 29, 2019, [O-FAIS-2]*)

"I'm Randy Rollison. I'm the Executive Director of Intersection for the Arts.

I'm here because we are located right next door to 30 Van Ness at 1446 Market Street, and we're the only building that is directly attached to the project. So we have concerns coming in tying into what construction cost is going to be. But we feel like we're in a really good position right now with the EIR and with our relationship with the developer -- that they're really paying attention and being very sensitive to the construction process and looking at things like our businesses." (*Intersection for the Arts, August 29, 2019, [O-IA-1]*)

"We're, also, in active conversation with Land Use about the ongoing arts and cultural program in 30 Van Ness and the public spaces that would be ongoing rather than ecstatic sculptures and things like that, so that we can help to pull together -- get together different elements of the neighborhood and partnership with other arts and cultural groups and do some really vital programming for the families and others that are going to be moving into the area." (*Intersection for the Arts, August 29, 2019, [O-IA-2]*)

"Let's make sure that we're not creating an urban ghetto. Let's make sure that this will be a sustainable neighborhood. Trying to squeeze this into the few acres that it is, is a pretty big -- especially in that one location between the freeway and Market Street -- that's asking a lot. Thank you." (*Tess Walbourn, August 29, 2019, [I-Walbourn-8]*)

"...when the proposal to raise some of the 400-foot towers was first voiced, it was -- you know, look at the aesthetic of these four 400-foot towers. It's flat. It's boring. They need to do thinner, elegant, beautiful, you know, varied heights, and it's going to, really, look gorgeous. And, you know, we'll get some extra housing out of it -- yeah; sounds good. However, as it's developing now, we have a very different profile." (*Jim Warshaw, August 29, 2019, [I-Warshaw-3]*)

"Good afternoon, Commissioners. My name is Jason Henderson. I've been involved with the Market & Octavia plan for over a decade. Dennis Richards and I were involved in the formation of the plan, and -- so this is an excellent location for housing. However, I want to talk about the adequacy of this document, and I'm going to go by the page numbers to help you find what I'm talking about." (*Jason Henderson, August 29, 2019, [I-Henderson-1]*)

RESPONSE GC-3

The comments generally describe the proposed project or the commenters' role in the environmental process; several comments pose opinions about the project. Some comments

express support and appreciation for the project. Other comments are general concerns regarding the proposed project, the analysis in the Draft EIR, or mitigation. Overall, these comments do not identify any particular deficiencies in the analysis or conclusions of the Draft EIR regarding the physical environmental impacts of the proposed project. Specific comments that relate to the adequacy of the information and analysis in the Draft EIR are addressed in the responses under each topical subsection. The comments are general in nature and do not present new information that requires changes or updates to the analysis provided in the EIR. Pursuant to CEQA Guidelines section 15088(c), general comments that do not contain or specifically reference readily available information may receive a general response.

The comments describing the project, describing the commenters' role, or expressing an opinion do not present any evidence that the analysis in the Draft EIR is inadequate. No additional analysis or change to the Draft EIR conclusions is required; therefore, recirculation of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT GC-4: GENERAL COMMENTS IN SUPPORT OF THE PROJECT AND THE EIR

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- A-HPC-1
- O-SPUR-1
- O-SFBC-1
- O-CCCB-1
- O-CCCB-3
- O-FAIS-1
- O-SFHAC-2
- O-IA-3
- I-Warshaw-1

“On August 7, 2019, the Historic Preservation Commission (HPC) held a public hearing on the Draft Environmental Impact Report (DEIR) for the proposed Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (2015-000940ENV). After discussion, the HPC arrived at the comments below:

- The HPC found the DEIR to be adequate and accurate, and concurred with the analysis presented in the DEIR concerning historic resources.” (*Historic Preservation Commission, August 20, 2019, [A-HPC-1]*)

“SPUR supports the proposed amendment the Market Octavia Plan through The Hub Plan, which would allow 1,640 additional housing units in a key location and increase public benefits generated in this plan area by 30%, from approximately \$725 million to nearly \$950 million. SPUR was a major supporter of the Better Neighborhoods community planning efforts that included Eastern Neighborhoods, Market Octavia and other plans ten years ago. These plans sought to comprehensively address how the city could accommodate growth in key locations and build out community infrastructure in tandem. Market Octavia has largely been seen as a success, with thousands of new infill housing units, significant affordability and visible improvements to the public realm.

In the years since Market Octavia was adopted, it has become clear that the city overall has not produced sufficient housing for those who want to be here. The Hub Plan is a strategic effort today to increase capacity in a central, transit-oriented location that is appropriate for both jobs and housing. Adding more height to the key sites in The Hub Plan will create significantly more benefits for the community: more affordable housing, more public realm investments and more funding for childcare and transit.

San Francisco needs more housing opportunities, soon. The Hub Plan is one of many tools the city must use to create these much-needed homes.

We also urge the Planning Department to embark on a new set of area plans across San Francisco. The Hub Plan is the only significant area plan work underway today, and it is not a full area plan.” (*San Francisco Bay Area Planning and Urban Research Association, August 29, 2019, [O-SPUR-1]*)

“Hi. Thank you, Commissioners. Good afternoon. My name is Darren Newell, and I am a campaign coordinator here on behalf of the San Francisco Bicycle Coalition. I'm happy to be here to provide support on behalf of our 10,000 members for the Market & Octavia planned amendment, also known as the Hub; especially as this relates to transportation and bike safety. With the plans that are -- that have been presented about the increasing density for residential units to the nearly 11,000 spaces, we greatly appreciate the incorporated designs for new bike ways on 13th Street and Duboce Avenue between Valencia and Folsom Streets, as well as the improved signal timing that's in the plans that'll be taking place for Otis, Mission, Duboce, and 13th Street intersections.

In addition to the bicycle infrastructure and improvements, we've been engaging with the 30 Van Ness team for over a year now, and we're really pleased to see the project is designed to encourage bicycle and pedestrian commuting. And the fact that they're exceeding the code for provisions of bicycle parking, including plans for facilities alongside the Van Ness, Fell, and Market Streets, are really big steps towards making progress towards our mode-share goals.

So we see The Hub Plan as proposed in the Draft Environmental Impact Report to be expanding -- existing the bicycle network in a meaningful way, and would help us move towards a goal of a safe bike-able neighborhood.

We see that the plan is adequate and complete, and it's an important milestone to moving this project forward.

So I want to thank the Planning Staff for their hard work on this project, as well as their community partners for working with us on the bicycle elements of the plan. Thank you." (*San Francisco Bicycle Coalition, August 29, 2019, [O-SFBC-1]*)

"Commissioners, I'm Jim Haas. I live at 100 Van Ness, and I'm on the board of the Civic Center Community Benefits District.

I participated through the eight or nine or ten years -- or whatever it took -- to do the Market & Octavia Plan, so I'm well aware of what the existing plan is and the call for multistory high-rise residential buildings on the Market and Van Ness area.

I think what is before you enhances what was prepared before, and I am enthusiastic about it as a resident. Although we have quite a significant amount of residential population there now, there still needs to be more to populate various empty stores in the area and to help make the area safe." (*Civic Center Community Benefits District, August 29, 2019, [O-CCCBD-1]*)

"Otherwise, I think it is an accurate and complete document, and I think the proposed changes in 12 the area would be good for where I live." (*Civic Center Community Benefits District, August 29, 2019, [O-CCCBD-3]*)

"I'm Melinda Bihn. I'm head of school at French American International School and International High School here in Hayes Valley. I want to thank the commissioners for their time. I want to thank Planning for their work on the Hub Project, and for a Draft EIR that we believe is adequate and complete." (*French American International School, August 29, 2019, [O-FAIS-1]*)

“As far as The Hub Plan, you know, we are in -- we are in support of it. We're going to be really, really excited about it. And more than anything else -- I know we're going to be a broken record on this.

Whatever we can do as an EIR and just try to maximize the number of homes that we study, just to give us more wiggle room in the future, and we think that that's what they've done here. Our office is in smack dab the middle of all this. Our office is a really cool graphic that has been put up that's about all the projects that are happening. So the entire area is going to get transformed, and we're really excited about it and excited to watch it be born. Thank you.” (*San Francisco Housing Action Coalition, August 29, 2019, [O-SFHAC-2]*)

“So we firmly support this project, 30 Van Ness and Market & Octavia amendment. Thank you very much.” (*Intersection for the Arts, August 29, 2019, [O-IA-3]*)

“Hi. I'm Jim Warshaw. I'm a Hayes Valley resident and long-term supporter of Market & Octavia.

When this was all coming up and everybody was talking about 400-foot towers, they were like, "Do you really support that?", and I go, "Yes. I do. We need to densify. This is the transit hub." And – so to much criticism from some people, I was an aggressive supporter of all of this.” (*Jim Warshaw, August 29, 2019, [I-Warshaw-1]*)

RESPONSE GC-4

The comments express support for the proposed project and the Draft EIR. These comments do not address the adequacy of the information or analysis presented in the Draft EIR; therefore, no response is required. However, the points raised in these comments will be transmitted to City decision makers and will be considered during the proposed project's approval process.

COMMENT GC-5: GENERAL COMMENTS IN OPPOSITION TO THE PROJECT

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- I-Scocchera-2
- I-Scocchera-7

- I-Scocchera-9
- I-Hestor (2)-13
- I-Walbourn-1
- O-NC-4
- O-MEDA-1

“My name is Richard Scocchera, and I have lived at 150 Franklin Street for approximately twenty-five years. I work for the San Francisco HSA DAAS Legal Department. Until I recently received a letter in my mailbox from the Planning Department, I was unaware of the huge project planned to be built next to my building. I am strongly opposed to a massive, nearly 40 story building being constructed next to a four story apartment building. There is nothing near this size on this block. I don’t see how such an inappropriate project can be approved.” (*Richard J. Scocchera, August 26, 2019, [I-Scocchera-2]*)

“I am thinking of the possibility of the effect of an earthquake if there is a forty story monstrosity next to a four story hundred year old building. What about the effects of wind, ventilation, and sunlight on our building? More and more cars and traffic on this block?” (*Richard J. Scocchera, August 26, 2019, [I-Scocchera-7]*)

“If you approve this horrible project, then you obviously can’t. Or you don’t care. Because it seems like the rich can do whatever they want wherever they want whenever they want in this City.

By the way, is this still a City, or is it a tax haven and luxury resort for the 1%?

I am also strongly opposed to our public tax money spent to solely benefit an elite private school. For example, there is mention of “streetscape improvements such as midblock crossing.”

Wealthy developers and property owners always seem to find ways to get public tax dollars to pay for things that benefit them and increase their property values.

Aren’t these the same very wealthy people and corporations that are not paying any taxes, or certainly not their fair share compared to working class people, who are bearing the tax burden? Our hard earned tax dollars subsidize entertainment for the elites: ballet, symphony, and opera, while people do not have anywhere to live and do not get medical care they desperately need. This project and the others nearby serve the purposes of gentrification, which is intrinsically racist and classist. This French school and other extremely expensive schools nearby are reminiscent of old fashioned European colonialism.

Are we going to hear the same old lies about “affordable housing units?”

These projects are for the richest people on earth. Period.

This project next to 150 Franklin Street is absolutely detrimental and disruptive to those of us who are long term San Franciscans and must be rejected.” (*Richard J. Scocchera, August 26, 2019, [I-Scocchera-9]*)

Assessor should be required to automatically report sales prices for condos to Planning Department on a on-going basis so that information of cost of housing available. Recent Chronicle article on Panopoly of Penthouses describes units costing \$40-49 million sitting waiting for buyers for years.

The Hub proposes to zone Market and Van Ness with condo heights of 450 feet, 520 feet, 650 feet, 590 feet. A lot of potentially empty floors.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-13]*)

“Commissioners, this is Tess Walbourn from District 5 and housing activist, among other hats. There are a number of significant and unavoidable impacts that are built into this plan, and, I think, they're not taken enough into account: Transportation, noise, air quality, and wind.” (*Tess Walbourn, August 29, 2019, [I-Walbourn-1]*)

“So I urge you not to certify this, unless you have the full report on transportation. People are not going to move in to these buildings and just sit put. You know, this is just not about housing. This is about housing and how they're going to get around.

So, please, do not certify the report, unless you get enough information on transit. Thank you.” (*The Neighborhood Council, Land Use Coalition, August 29, 2019, [O-NC-4]*)

“Good afternoon, Commissioners. Peter Papadopoulos with Mission Economic Developing Agency. And I think as just an overview kind of comment, I do think that -- I just wanted to reiterate, we don't think this is the time to be up-zoning here, and we would like to see this whole project held until the city has an equitable development policy in place that would say, “What are the guidelines here?” and, particularly, in light of the factor here, we're saying we're not able to meaningful value to capture. If that's true, for some reason -- if that's what the reports are saying, then I think we would hold instead of transfer hundreds of millions of dollars being raffled off at the top without getting anything back for our services or our infrastructure, et cetera.” (*Mission Economic Developing Agency, August 29, 2019, [O-MEDA-1]*)

RESPONSE GC-5

Overall, these comments relate to general concerns or opinions regarding the proposed project or the analysis in the Draft EIR. They do not identify any particular deficiencies in the analysis or conclusions of the Draft EIR regarding the physical environmental impacts of the proposed project. Other comments are introductory in nature or do not present specific issues related to the proposed project or the Draft EIR. Specific comments that relate to the adequacy of the information and analysis in the Draft EIR are addressed in the responses under each topical subsection.

The comments cover several different topics found in the initial study and EIR. One comment relates to earthquakes, which are addressed on pages E.16-12 to E.16-18 of the initial study. Two comments are related to wind, which are addressed in Section 3.E, Wind, of the EIR. One comment mentions sunlight concerns, which are addressed in Section 3.F, Shadow, in the EIR. Another comment voices general noise and air quality concerns, which are addressed in EIR Sections 3.C, Noise, and 3.D, Air Quality. Three comments concern transportation and congestion. The reader is referred to Response TR-8, pp. 4-59 to 4-61, for traffic congestion information. Other transportation concerns are addressed in Section 3.B, Transportation and Circulation, of the EIR and in Section E, Transportation and Circulation, of this RTC document. The remaining comments regard socioeconomics and affordable housing. The EIR is not required to analyze socioeconomic issues, such as the cost of housing or the development of equitable development policies. However, one of the project's objectives is to provide affordable housing. Please see Response GC-2 for a discussion of affordable housing.

The EIR, as outlined in CEQA Guidelines section 15123, adheres to the requirements of CEQA. These general comments in opposition to the project do not address the adequacy of the information or analysis presented in the Draft EIR; therefore, no response is required. However, the points raised in these comments will be transmitted to City decision makers and will be considered during the proposed project's approval process.

COMMENT GC-6: GENERAL EFFECTS OF CITYWIDE CONSTRUCTION

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- I-Scocchera-3
 - I-Scocchera-4
 - I-Scocchera-6
 - I-Scocchera-8
-

“My office is at 1650 Mission Street, which is very close to my apartment, so I walk to work. There is and has been constant construction on every block between my apartment and my office, making it more and more difficult to walk even a few blocks.

Construction of 24 Franklin Street, approximately one block from my building went on for a long period, constantly blocking the sidewalk there. At least that building is about the same height as the old building next to it, although it is extremely close to it and now blocks the windows and views of the people in that older building.

Currently, the massive construction projects around South Van Ness & Mission, where I understand your Planning Department will soon be housed, and newly begun project at 12th Street & Otis St., are constantly blocking the streets and sidewalks.

Worse are the health effects of these ubiquitous and constant construction projects. Recently, I have been suffering from respiratory and throat problems, hearing loss, and constant headaches. I first noticed these problems when walking by these construction sites a few times a day. The noise is unbelievable. There have been tremendous amounts of dust in the air. I have no idea what the dust contains.” (Richard J. Scocchera, August 26, 2019, [I-Scocchera-3])

“Many old buildings were demolished, which probably contained toxic substances. This stuff is in the air all over this area. The height of these buildings is creating wind tunnels.” (Richard J. Scocchera, August 26, 2019, [I-Scocchera-4])

“The idea that there will be more huge construction sites right next to my home is a major attack on the quality of life for the long time residents who actually live and work here full time and have done so all or most of our lives.” (Richard J. Scocchera, August 26, 2019, [I-Scocchera-6])

“Isn’t it the job of the Planning Department to realize that construction in this area is extremely excessive? Or is every single building no matter how large, out of place, and detrimental to the current residents approved automatically?

How can this many large construction projects in a small area of a few square blocks be allowed to be done simultaneously?

Can you imagine what it’s like to live in the middle of a gigantic, filthy, deafening, and dangerous construction site everyday with no end in sight?” (Richard J. Scocchera, August 26, 2019, [I-Scocchera-8])

RESPONSE GC-6

The comments express displeasure about the amount of construction occurring near the commenter's residence and where the commenter walks to work. CEQA Guidelines section 15130 requires an evaluation of a proposed project's potential contributions to cumulative impacts, in addition to proposed project-specific impacts. CEQA Guidelines section 15130(a)(1) states that a "cumulative impact consists of an impact which is created as a result of the combination of the proposed project evaluated in the EIR together with other proposed projects causing related impacts." Other proposed projects include past, present, and reasonably probable future proposed projects. Table 3-2 and Figures 3-1A and 3-1B, pages 3-15 and 3-16, in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, in the Draft EIR, show the cumulative projects for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub HSD. The impacts of cumulative construction are discussed, as appropriate, for each environmental topic in the Draft EIR and initial study.

As discussed in the Draft EIR, cumulative impacts would result from the proposed project. Section 3.B, Transportation and Circulation, of the Draft EIR, states that significant and unavoidable cumulative impacts would result from construction activities after implementation of mitigation measures. Section 3.C, Noise, of the Draft EIR determined that there would be significant and unavoidable cumulative impacts from construction noise, even with the application of mitigation measures. Section 3.D, Air Quality, states that there would be a significant and unavoidable cumulative impact related to exposure of sensitive receptors to substantial levels of fine particulate matter (PM_{2.5}) and toxic air contaminants under 2040 cumulative conditions, after the application of mitigation measures. Additionally, Section 3.E, Wind, states that there would be significant and unavoidable cumulative wind impacts after the application of mitigation measures. Finally, Section E.18, Hazards and Hazardous Materials, in the initial study, found that a cumulative impact related to hazards and hazardous materials would be less than significant. However, some of topics the commenter mentions about construction, such as density concerns and social impacts, are outside the scope of the CEQA analysis.

The comments regarding the general effects of citywide construction do not present any evidence that the analysis in the Draft EIR is inadequate. No additional analysis or change to the Draft EIR conclusions is required; therefore, recirculation of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT GC-7: STRUCTURE OF THE DRAFT EIR AND THE CEQA PROCESS

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- A-OPR-1
- A-OPR-2
- O-TNDC-2
- O-TNDC-3
- O-YBNC-1
- O-SOMCAN-2
- O-SOMCAN-30

"The State Clearinghouse submitted the above named EIR to selected state agencies for review. The review period closed on 9/6/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation,"

Check the CEQA database for submitted comments for use in preparing your final environmental document: <https://ceqanet.opr.ca.gov/2018052060/2>. Should you need more information or clarification of the comments, **we recommend that you contact the commenting agency directly.**

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process." (*Office of Planning and Research, September 9, 2019, [A-OPR-1]*)

"The comment (s) on your EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on 9/6/2019. **Please check the CEQA database for these**

comments: <https://ceqanet.opr.ca.gov/2018052060/2> because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2018052060) when contacting this office." (*Office of Planning and Research, September 9, 2019, [A-OPR-2]*)

"TNDC submitted a scoping letter on June 21, 2018, in response to the May 23, 2018 NOP. We are primarily concerned about the project's impacts on the low-income communities. On page s-7, you summarize many of the concerns you have heard in reference to the NOP, and direct us to Chapter Four for a "discussion of steps to mitigate impacts on lower-income Tenderloin and SoMA community." Unfortunately, we do not see where the needs of this population are specifically addressed in this chapter." (*Tenderloin Neighborhood Development Corporation, September 6, 2019, [O-TNDC-2]*)

"Additionally, on page s-7 we also are directed to Section 3.B to learn more about "requests for a community process where affected community members can give feedback on safer and walkable streets." We were also unable to find a section detailing a community process for impacted community members in this section." (*Tenderloin Neighborhood Development Corporation, September 6, 2019, [O-TNDC-3]*)

"This EIR does not satisfy the requirements of CEQA.

One has to go to page 786 to learn the most crucial project information of all to start with:

"The total number of new residential units developed under Alternative A would be approximately 5,300 (compared to the potential for approximately 8,100 new units under the Hub Plan). Although it is probable that not all sites would be built out to the Market and Octavia Area Plan height limits, it is also likely that development on some parcels would take advantage of state and local density bonus programs, which would allow construction to heights that would be above current limits. Therefore, on balance, a buildout to existing height limits is reasonable for purposes of estimating development potential under this alternative."

Elsewhere the DEIR states that estimated use of the State Density Bonus for the proposed project is 15%, which implies that the zoning changes alone would result in 7,043 new housing units total vs. the current zoning's 5,300 total units, an increase of only 1,743 housing units from the rezoning itself – a 32% increase.

Nowhere are these basic facts clearly stated in the DEIR. They belong up front in the Summary of course, along with comparable housing units totals for each Alternative.” (*The Yerba Buena Neighborhood Consortium, August 29, 2019, [O-YBNC-1]*)

“The comment period allowed for this type of environmental review document, given its large scope as a Plan Area EIR, is extremely insufficient. Allowing barely 45 days to respond to this over 800 page technical document is a flaw of the evaluation process as it greatly limits who can review it and respond to it. A more extensive public review must be given to a proposal of this scope, especially given attempts at the state level to further streamline development by reducing public input. Area Plans already work to streamline development by providing a “program-level” EIR for applicable projects in the Plan Area; such streamlining must be met with a more thorough and balanced public review and input process.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-2]*)

“The DEIR review and input process did not allow for sufficient time for the public to respond to a proposal that will have tremendous impacts on not just the South of Market, but the entire city. The potential addition of some 8,000 to 9,700 (again, the numbers are unclear) new majority market-rate housing units that will house mainly wealthy residents will substantially contribute to existing gentrification and displacement impacts.” (*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-30]*)

RESPONSE GC-7

Two of the comments notified the City that the comment period has closed. The department acknowledges receipt of OPR's letters and notes that the comment period closed on September 9, 2019.

Two of the comments stated that certain responses to scoping comments regarding impacts on low-income communities and the process for affected community members to give feedback on safer and more walkable streets is not located where stated in the Summary. Impacts on low-income communities are a social and economic effect and relevant under CEQA only if they result in or are caused by an adverse physical impact on the environment. This type of socioeconomic impact would not result in or be caused by an adverse physical impact on the

environment; therefore, discussion of this type of impact is not included in the Draft EIR. The Draft EIR discusses safety hazards for people walking and bicycling. However, the general feedback from affected community members regarding safer and more walkable streets is beyond the scope of this EIR and the CEQA process, which focuses on the physical environmental impacts of a project. The streetscape and street network improvements would improve the safety and walkability of streets and alleys in the Hub Plan area; therefore, this type of community feedback process is not warranted.

The department initiated a community planning process for the Market Octavia Plan Amendment (Hub) in 2016. The department held a wide variety of outreach and engagement events, including large public workshops, to solicit input and feedback from community members; attended meetings of neighborhood groups and citywide organizations; regularly attended Market Octavia Citizen Advisory Committee sessions, and made presentations before the Planning Commission at key milestones. Regarding comments about where in the Draft EIR certain topics were addressed, the text on page S-7 of the Draft EIR has been revised as indicated below. These revisions do not change any of the analyses or conclusions of the EIR, and recirculation of the EIR or a section of the EIR is not required.

- Requests for discussion of steps to mitigate impacts on lower-income Tenderloin and SoMa community (~~Chapter 4, Other CEQA Considerations~~ not required under CEQA).
- Requests for a community process where affected community members can give feedback on safer and walkable streets (~~Section 3.B,~~ outside the CEQA process and not discussed in this document).

One comment states that the Draft EIR is inadequate because the Summary does not clearly state the number of residential units per alternative or describe the state density bonus program for Alternative A. Page S-8 in the Summary states that the "...total number of new residential units developed under Alternative A would be approximately 5,300 units" and that Alternative B would include the same developing assumptions as the Hub Plan, "...including the addition in the Hub Plan area of approximately 8,100 residential units." To further clarify, text below has been added on page S-8, Summary, of the Draft EIR as indicated below. These revisions do not change any of the analyses or conclusions of the EIR, and recirculation of the EIR or a section of the EIR is not required.

Alternative C would modify the assumptions of what would occur at the 18 sites identified under the Hub Plan for height and bulk increases. Alternative C would include an estimated 7,802 new residential units (compared with approximately 8,530 new residential units under the Hub Plan), including a 15 percent development "buffer" within this number (same as the Hub Plan).

Regarding the state density bonus program for Alternative A, Chapter 5, Alternatives, explains that not all existing sites would be built out to the Market and Octavia Area Plan height limits.

It is also likely that development on some parcels would take advantage of state and local density bonus programs, which would allow construction to heights that would be above current limits. Therefore, on balance, buildout to existing height limits is reasonable for purposes of estimating development potential under this alternative.

Two comments express concerns about the length of time for public review of the Draft EIR and stated that it was not adequate. The public review period for the Draft EIR was 47 days, two days longer than what is required under CEQA Guidelines section 15105. Therefore, the public review period was adequate. In addition, four additional public outreach meetings and workshops were held in the Hub Plan area between 2016 and 2019 to obtain community input and feedback.

The comments regarding the structure of the Draft EIR and the CEQA process do not present any evidence that the analysis in the Draft EIR is inadequate. No additional analysis or change to the Draft EIR conclusions is required; therefore, recirculation of the EIR is not required. The concerns raised in these comments will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT GC-8: GENERAL COMMENTS ON MITIGATION MEASURES

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- I-Hestor (2)-16

“Mitigation measures for approval of 98 Franklin - and other buildings in The Hub - should include education of new residents and occupants of the impacts on congestion IN THAT IMMEDIATE AREA, air quality, effects on public transit, on bicyclists, and the need to change behavior. To enable construction of thousands of new housing units, and a school, without serious environmental consequences.” (*Sue C. Hestor, September 9, 2019, [I-Hestor (2)-16]*)

RESPONSE GC-8

The commenter would like mitigation measures to include educating new residents and project occupants about impacts related to congestion, air quality, public transit, and bicyclists in their specific area. Mitigation Measure M-AQ-5a, Educate Residential and Commercial Tenants Concerning Low-VOC Consumer Products, encourages the use of consumer products and paints that are better for the environment because their emissions of volatile organic compounds (VOCs) are lower. Mitigation Measure M-AQ-7a, Additional Air Quality Improvement Strategies to Reduce Hub Plan-Generated Emissions and Population Exposure, includes a provision for public education regarding the need to reduce air pollutant emissions

and their health effects. Significant impacts, under CEQA, were not identified with respect to congestion, public transit, or bicyclists; therefore, mitigation is not required.

The general comment regarding mitigation measures does not present any evidence that the analysis in the Draft EIR is inadequate. No additional analysis or change to the Draft EIR conclusions is required; therefore, recirculation of the EIR is not required. The concerns raised in the comment will be transmitted to City decision makers for their consideration during the proposed project's approval process.

COMMENT GC-9: GENERAL COMMENTS ON NON-CEQA ISSUES

This response addresses the comments from the commenters listed below; each comment on this topic is quoted in full below this list.

- O-SOMCAN-17
- O-MEDA-4
- O-TNDC-4

“Further, socioeconomic factors are not studied in the report, leading to a lack of study of who exactly the pedestrians are that bear the brunt of new hazards generated. According to the San Francisco Department of Public Health, as reported in a September 3rd, 2019 SF Examiner article, homeless people are disproportionately killed in traffic-related incidents, with homeless individuals making up less than one percent of the city’s population but accounting for twenty-two percent of recent traffic deaths.⁵⁴ This shows a clear socioeconomic impact that is not studied in the report. Houseless San Franciscans are going to be at an increased risk of traffic-related deaths due to increases in automobile traffic and usage. As the plan does not provide any means of housing the houseless population in San Francisco, nor does it aim to try and do so, this represents a flaw in the analysis provided by the report. For all of these reasons, the walking and pedestrian safety hazards are not adequately studied in the report.”
(*South of Market Community Action Network, September 6, 2019, [O-SOMCAN-17]*)

“We would, also, like to see -- I was not able to find anything on impacts to potentially -- aiding to the plans the EIR impacts to the existing homeless population, which is living in some of those areas that are set to be redesigned.” (*Mission Economic Developing Agency, August 29, 2019, [O-MEDA-4]*)

⁵⁴ <https://www.sfexaminer.com/news/homeless-residents-at-high-risk-of-death-in-traffic-collisions/>

“While TNDC supports adding to the housing supply of the City, we believe that prioritizing the needs of low-income communities is paramount. We would like to see the needs of the surrounding low-income communities explicitly and thoughtfully addressed in this EIR.”
(*Tenderloin Neighborhood Development Corporation, September 6, 2019, [O-TNDC-4]*)

RESPONSE GC-9

The comments request a discussion of socioeconomic impacts, particularly impacts on homeless populations and low-income communities. The commenter also expresses concern about walking and pedestrian safety hazards; these topics are discussed in Section 3.B, Transportation and Circulation, of the Draft EIR. CEQA does not require analysis of socioeconomic issues such as homelessness or low-income communities; therefore, these issues are typically not addressed in environmental review documents. The focus of CEQA is on whether or how a project’s physical changes to the environment could result in adverse physical impacts, such as the impacts of a project on air quality or water quality. CEQA Guidelines section 15360 defines “environment” for the purposes of CEQA as “the *physical* conditions which exist within the area which will be affected by the proposed project...” (emphasis added).

As stated in CEQA Guidelines section 15131(a),

Economic or social effects of a project shall not be treated as significant effects on the environment. An EIR may trace a chain of cause and effect from a proposed decision on a project through anticipated economic or social changes resulting from the project to physical changes caused in turn by economic or social changes. The intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes.

The CEQA Guidelines provide that social or economic impacts need not be treated as significant effects on the environment. Evidence of economic impacts that do not contribute to, or are not caused by, adverse physical changes to the environment is not substantial evidence of a significant effect on the environment. However, a social or economic change related to a physical change may be considered in determining whether the physical change is a significant environmental impact. In addition, an EIR or other CEQA document must consider the reasonably foreseeable indirect environmental consequences or physical changes resulting from a project’s economic or social changes. In short, social and economic effects are relevant under CEQA only if they result in or are caused by an adverse physical impact on the environment. However, all impacts disclosed in the Draft EIR apply to all persons in the vicinity of the Hub Plan area or the two individual development projects, including those living in low-income communities.

According to CEQA Guidelines section 15088, the comment does not raise specific issues about the adequacy or accuracy of the EIR’s coverage of physical environmental impacts. Physical environmental impacts would occur as a result of construction and operation of the proposed

project have been analyzed in detail in the EIR. The comment does not present any evidence that construction and operation of the proposed project would result in any significant environmental impacts that were not disclosed in the EIR or lead to any economic or social changes that would result in a significant adverse physical environmental impact.

COMMENT GC-10: GENERAL COMMENTS ON CUMULATIVE PROJECTS

This response addresses the comments from the commenter listed below; each comment on this topic is quoted in full below this list.

- I-Hestor (1)-1

“This is probably the 50th comment. This area really struck me where it's gobbling up the city. This is tech industry right here, and there's a lot of projects on this map that could have been approved that have not been built. 1 Oak, right here; 1370 Mission, right there; across the street from the Planning Department, right here.

So -- and those projects account for 800 units of housing that have already been approved but not built. One of the fantasies we engage in is approving projects build them. That's not really the case.

I have a couple comments on this based on -- the Academy of Art is coming to you in a couple weeks. There are nine projects that are major, major -- I will put this map just because -- so you can see what area is being commented on.” (*Ms. Hestor, August 29, 2019, [I-Hestor (1)-1]*)

RESPONSE GC-10

The comment states that many projects in this area have been approved but not built. It also notes that many projects will be coming to the planning commission in the near future for approval. The list of cumulative projects in the Draft EIR includes projects that have been approved but not built. Approved projects must obtain all of their entitlements before construction can begin, which accounts for the gaps between project approval and construction. It is the department's objective to create a vibrant mixed-use neighborhood in this area. The proposed project, along with the cumulative projects, would help to achieve this objective.

The general comment on non-CEQA issues does not present any evidence that the analysis in the Draft EIR is inadequate. No additional analysis or change to the Draft EIR conclusions is required; therefore, recirculation of the EIR is not required. The concerns raised in the comment will be transmitted to City decision makers for their consideration during the proposed project's approval process.

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5. DRAFT EIR REVISIONS

This chapter presents specific revisions to the text of the Draft Environmental Impact Report (Draft EIR) that are being made in response to comments or to amplify and clarify material in the Draft EIR. Where revisions to the main text are called for, the page and paragraph are set forth, followed by the appropriate revision. Added text is indicated with underline text. Deletions to the text are shown with ~~strikethrough~~ text. Page numbers correspond to the page numbers of the Draft EIR. The revisions to the Draft EIR derive from two sources: 1) comments raised in one or more of the comments letters received by the City and County of San Francisco regarding the Draft EIR and 2) staff-initiated changes that correct minor inaccuracies and typographical errors or clarify or update material found in the Draft EIR subsequent to its publication and circulation. Staff-initiated changes to clarify information presented in the Draft EIR are highlighted by an asterisk (*) in the margin to distinguish them from text changes associated with responses to comments.

A. SUMMARY

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor's (30 Van Ness Development, LLC) updates to the design since publication of the Draft EIR. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page S-1, the fourth sentence of the third paragraph has been edited as follows:

- * The project sponsor for the 30 Van Ness Avenue Project, 30 Van Ness Development, LLC, proposes partial retention of the existing office/retail building and construction of a 47~~5~~-story building with ground-floor retail space, up to 10~~11~~ floors of office space, and 37~~3~~ floors of residential space.

On page S-2, the fourth sentence of the third paragraph has been revised as follows:

- * If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,530~~8,100~~ new residential units (approximately 16,540~~15,700~~ new residents).

Two of the bullets on page S-7 of the Summary have been modified as follows to clarify:

- Requests for discussion of steps to mitigate impacts on lower-income Tenderloin and SoMa community (~~Chapter 4, Other CEQA Considerations~~ not required under CEQA).

- Requests for a community process where affected community members can give feedback on safer and walkable streets (~~Section 3.B, Transportation~~outside the CEQA process and not discussed in this document).

On page S-8, the third sentence of the second paragraph (under the first bullet) has been revised as follows:

- * As such, development assumptions for this alternative would be the same as those for the Hub Plan and Hub HSD, including the addition in the Hub Plan area of approximately ~~8,530~~8,100 residential units, which includes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street.

The text describing Alternative B on page S-8 of the Summary has been revised as follows:

- * Alternative B includes upzoning of the 18 sites, rezoning parcels from Neighborhood Commercial Transit (NCT) to Downtown General Commercial (C-3-G) zoning district, and extending the Van Ness and Market ~~Downtown~~ Residential Special Use District, as would occur with the proposed project.

The text describing Alternative C on page S-8 of the Summary has been modified as follows:

Alternative C would modify the assumptions of what would occur at the 18 sites identified under the Hub Plan for height and bulk increases. Alternative C would include an estimated 7,802 new residential units (compared with approximately 8,530~~8,100~~ new residential units under the Hub Plan), including a 15 percent development “buffer” within this number (same as the Hub Plan).

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor’s (30 Van Ness Development, LLC) updates to the design. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page S-75, the second column of the first row of Table S-3 has been edited as follows:

- * The Hub Plan would implement changes to current zoning controls, including changes to height and bulk districts for select sites, to allow more housing, including more affordable housing. Modifications to land use zoning controls would also allow more flexibility for development of nonresidential uses, specifically, office, institutional, art, and public uses. The Hub Plan also calls for public realm improvements to streets and alleys within and adjacent to the Hub Plan area, such as sidewalk widening, streetlight upgrades, median realignment, road and vehicular parking reconfiguration, tree planting, and the addition of bulb-outs. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a ~~47~~45-story building with ground-floor retail space, ~~10~~11 floors of office space, and approximately ~~37~~33 floors of residential space. The proposed project at 98 Franklin Street includes demolition of the

existing 100-space surface vehicular parking lot and construction of a 31-story residential tower above a five-story podium that would be occupied by new high school facilities for the International High School (grades 9–12 of FAIS).

On page S-16, Table S-1 has been updated for M-CUL-4a for consistency with mitigation language in chapter 3 of the Draft EIR. The first sentence of the mitigation measure has been revised as follows:

- * This archaeological mitigation measure shall apply to any subsequent development project involving any soil-disturbing or soil-improving activities including excavation, utilities installation, grading, soils remediation, or compaction/chemical grouting 2 feet or ~~greater~~more below ground surface, for which no archaeological assessment report has been prepared.

On page S-18, Table S-1 has been updated for M-CUL-4c for consistency with mitigation language in chapter 3 of the Draft EIR. The first sentence of the mitigation measure has been revised as follows:

- * Based on the reasonable potential that archaeological resources may be present within the Hub Plan area in instances where streetscape and street network improvements are proposed that include soil disturbance of 2 feet or ~~greater~~more below street grade, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources and on human remains and associated or unassociated funerary objects.

On page S-35, Table S-1 has been updated for M-NOI-1a for consistency with mitigation language in chapter 3 of the Draft EIR. The first two bullets of the mitigation measure have been revised as follows:

- *
 - Locate construction equipment, ~~(including stationary noise sources (e.g., like temporary generators))~~ as far as feasible from adjacent or nearby noise-sensitive receptors.
- *
 - Stationary noise sources (e.g., generators and compressors) located in close proximity to noises-sensitive land uses shall be muffled, ~~and~~ enclosed within temporary enclosures, ~~and~~ shielded by barriers (which can reduce construction noise by as much as 5 dB).

On page S-47, Table S-1, the title of M-AQ-5c is inconsistent with the mitigation measure title used in chapter 3 of the Draft EIR. The title of M-AQ-5c is correct throughout the Draft EIR, except for when crossed referenced for implementation for Impact AQ-7 in Table S-1. The first sentence of the Mitigation and Improvement Measures listed for Impact AQ-7 is updated as follows:

- * Implement Mitigation Measure M-AQ-5c: Best Available Control Technology for Projects with Diesel Generators and Fire Pumps

On page S-55, Table S-1, the title of the second preferred method of wind baffling is updated to be consistent with the text used in chapter 3 of the Draft EIR. The title under the second feature is updated as follows:

- * 2. Wind Baffling Measures on the Building and on the Project Sponsor's Private Property.

On page S-60, Table S-2 has been updated for M-TCR-1 for consistency with mitigation language in Appendix B: Initial Study. The first sentence of the mitigation measure has been revised as follows:

- * This tribal cultural resources cultural mitigation measure shall apply to any project involving any soils-disturbing or soils-improving activities including excavation, utilities installation, grading, soils remediation, or compaction/chemical grouting at depths that would extend into sand dune and marsh deposits, ~~which~~that occurs at depths ~~from~~of 2 feet or more below the ground surface.

B. INTRODUCTION

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor's (30 Van Ness Development, LLC) updates to the design. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page 1-1, the first sentence of the fourth paragraph has been edited as follows:

- * The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a ~~47~~5-story building with ground-floor retail space, ~~10~~1 floors of office space, and approximately ~~37~~3 floors of residential space.

C. PROJECT DESCRIPTION

On page 2-3, the second sentence has been updated for the proposed entitlement process as follows:

- * Of the sites proposed for increased height upzoning, two individual development project sites within the Hub Plan area at 30 Van Ness Avenue and 98 Franklin Street are evaluated at a project-specific level in this EIR, meaning that no additional environmental review will be required for these projects following certification of the

EIR, unless their project descriptions are revised in a way that would trigger supplemental or subsequent environmental review under CEQA.

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor's (30 Van Ness Development, LLC) updates to the design. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page 2-3 of the project description, first paragraph, fourth sentence, the edits are as follows:

- * The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a ~~47~~⁵-story building with ground-floor retail space, ~~10~~¹ floors of office space, and approximately ~~37~~³ floors of residential space.

The Hub Plan project sponsor, the San Francisco Planning Department (department), proposed updating the name of the Van Ness and Market Downtown Residential Special Use District and removed "Downtown." The text regarding changes to the planning code in the first paragraph of page 2-5 of the project description has been modified as follows:

- * This would include changes to height and bulk districts for select sites to allow more housing, including more affordable housing (see **Table 2-1**, p. 2-24), and updating the name of the special use district.

On page 2-5 in Chapter 2, Project Description, the fourth sentence of the second paragraph, in the Background subsection, has been revised as follows:

- * The Market and Octavia Area Plan also created the Van Ness and Market ~~Downtown~~ Residential Special Use District (SUD).

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor's (30 Van Ness Development, LLC) updates to the design. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page 2-7, third paragraph, in first sentence of the project description, the edits are as follows:

- * Two individual private development projects within the Hub Plan area are being evaluated in this EIR at a project-specific level. The proposed project at 30 Van Ness Avenue includes retention of portions of the existing 75-foot-tall, five-story building and construction of a ~~47~~⁵-story building with ground-floor retail space, ~~10~~¹ floors of office space, and approximately ~~37~~³ floors of residential space.

On page 2-14 in Chapter 2, Project Description, the first sentence in the second paragraph has been revised as follows:

- * The project site at 30 Van Ness Avenue is in the Downtown/Civic Center neighborhood, within the Downtown General Commercial (C-3-G) zoning district and the Van Ness and Market ~~Downtown~~ Residential SUD.

The second bullet of the project objectives on page 2-10 of the project description has been updated as follows:

- *
 - ~~Maintain a strong preference for housing as a desired use.~~
 - Increase the production of housing, especially affordable housing.

On page 2-15 in Chapter 2, Project Description, the third sentence in the third paragraph has been revised as follows:

- * In addition, the project site borders a Neighborhood Commercial Transit (NCT-3) zoning district and the Van Ness and Market ~~Downtown~~ Residential SUD.

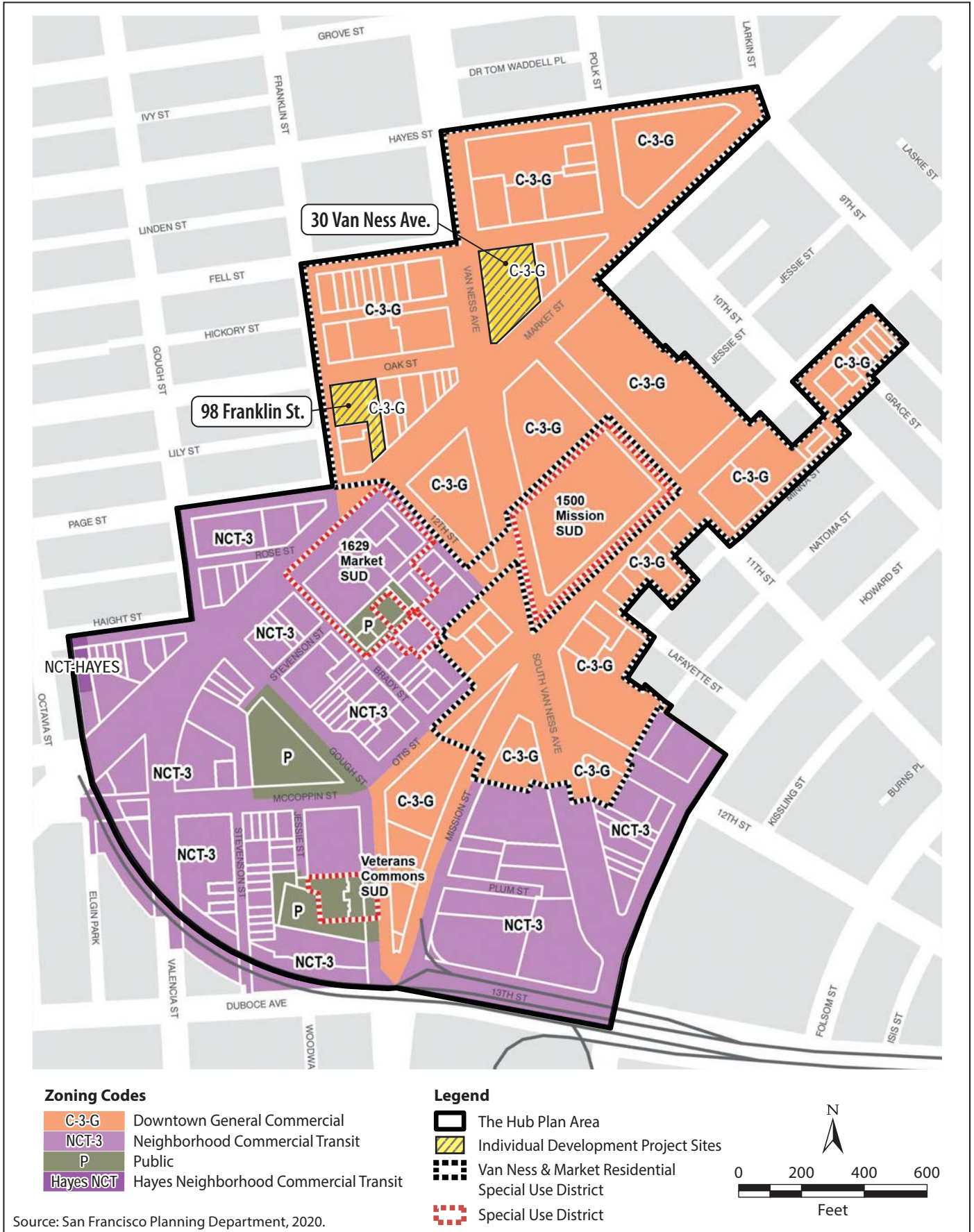
- * Figure 2-4 on page 2-18 and Figure 2-5 on page 2-20 in Chapter 2, Project Description, have been revised to read “Van Ness & Market Residential Special Use District” in the legend. Figure 2-5 has been further revised to show the rezoning of four parcels to the P designation. The revised figures are provided on the following pages.

On page 2-19 in Chapter 2, Project Description, the first sentence in the first full paragraph has been revised as follows:

- * The majority of sites that are zoned Downtown General Commercial (C-3-G) – which cover primarily the northern portion of the Hub Plan area – are also within the Van Ness and Market ~~Downtown~~ Residential SUD.

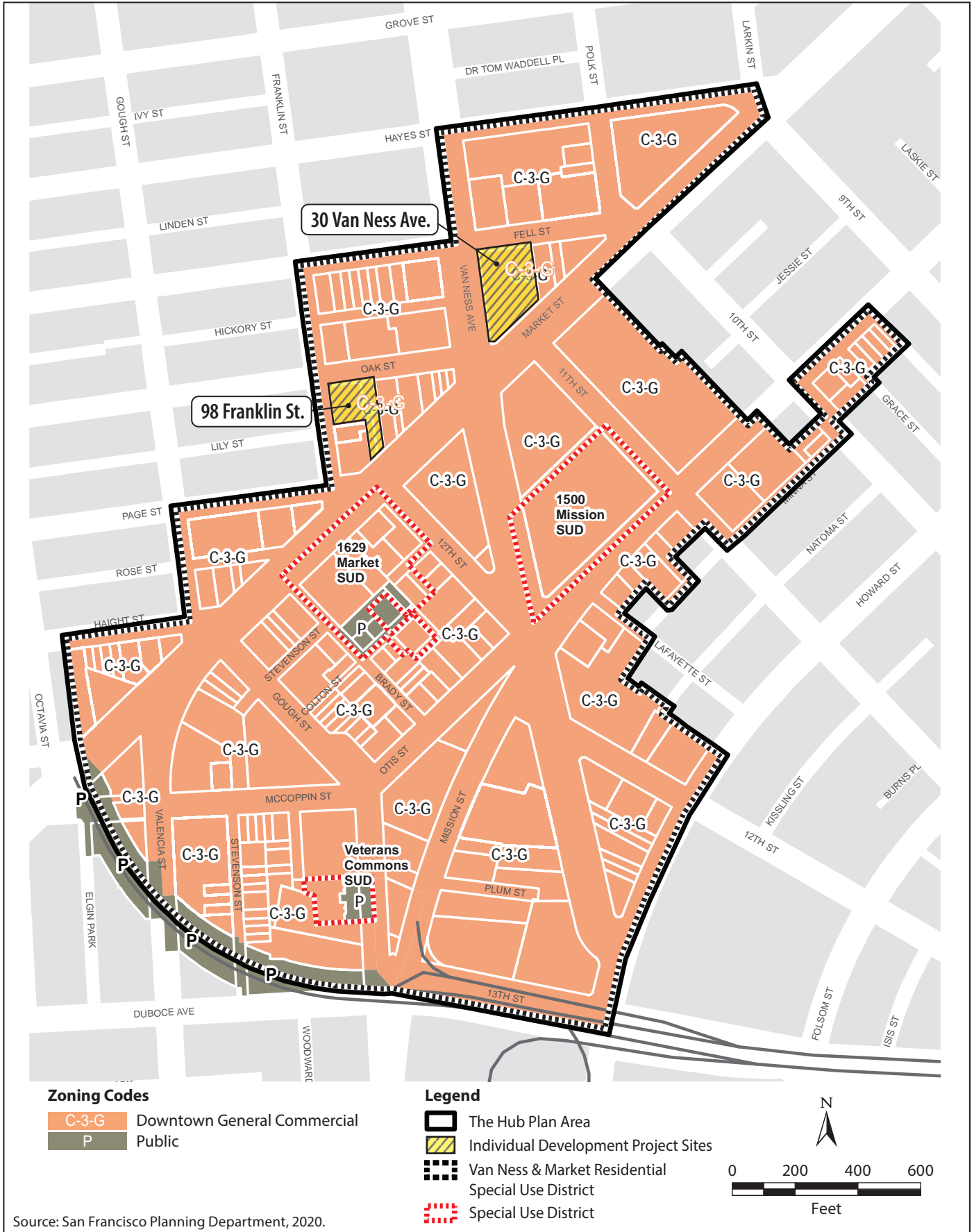
The text describing changes to the planning code on page 2-19 of the project description has been modified as follows to update the name of the special use district:

- * Proposed zoning for the Hub Plan area is shown in **Figure 2-5**. Under the proposed zoning, there would be two zoning districts, Downtown General Commercial (C-3-G) and Public (P); ~~and the Van Ness and Market ~~Downtown~~ Residential SUD would be expanded to encompass the entire Hub Plan area;~~ and the planning code would be updated to remove “Downtown” from the district’s name. A portion of the Veterans Commons SUD would be changed to the Van Ness and Market ~~Downtown~~ Residential SUD.



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Figure 2-4
Existing Hub Plan Area Zoning Districts
[Revised]



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 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 2-5
Proposed Hub Plan Area Zoning Districts
[Revised]

The text describing changes to the planning code on page 2-19 of the project description has been modified as follows to clarify entitlement requirements for formula retail:

- * ~~In addition, t~~The existing prohibition on certain nonresidential uses above the fourth floor would be eliminated, and a conditional use entitlement for formula retail uses at the properties proposed for rezoning to C-3-G from NCT-3 would be added.

The text describing existing zoning on page 2-19 of the project description, second paragraph, last sentence, has been modified as follows to clarify:

- * With the exception of the area contained within the 1500 Mission Street SUD (see Figure 2-4) where only public agency office space is allowed at the ground floor, tThe current zoning allows for a range of residential uses as well as commercial uses on the ground floor.

The text describing the proposed residential-to-nonresidential ratio on page 2-19 of the project description, third paragraph, fifth sentence, has been modified as follows:

- * In addition, the existing prohibition on certain nonresidential uses above the fourth floor would be eliminated. Further, the ~~SUD~~ residential-to-nonresidential ratio would increase to 3 square feet of residential use for every 1 square foot of nonresidential land use (i.e., a 3:1 ratio), with arts, institutional, replacement office, and public uses exempt from this requirement.

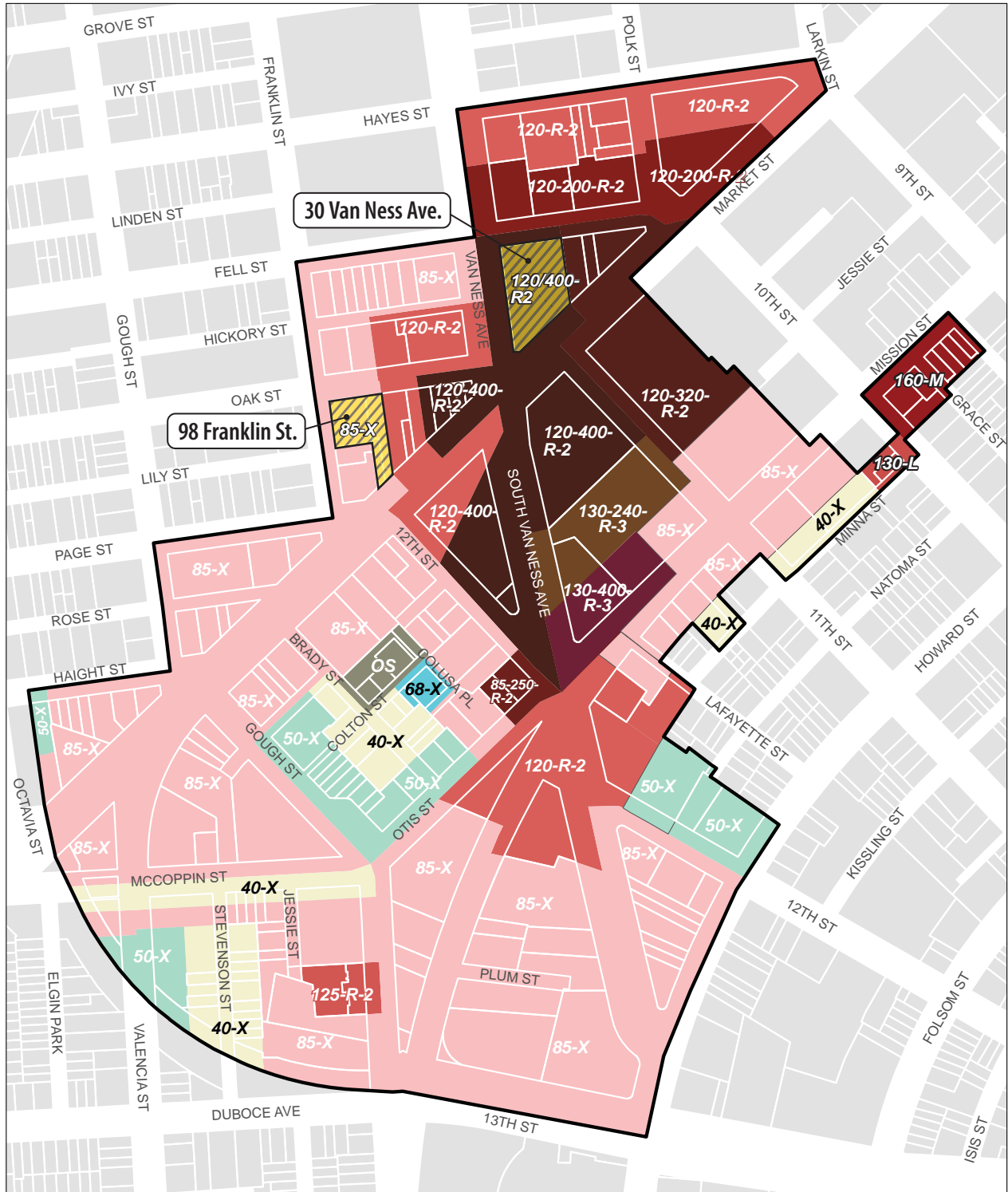
On page 2-21, the first two sentences of the fifth paragraph have been updated for the proposed entitlement process as follows:

- * The ~~proposed zoning under the Hub Plan proposes would allow for~~ additional height at the two major intersections noted above, with proposed maximum height limits ranging from 250 to up to 650 feet at these intersections. These Hub Plan proposed zoning would also increase maximum height limits at other select sites throughout the Hub Plan area.

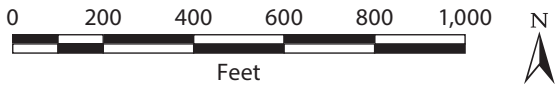
On page 2-21, the fourth sentence of the fifth paragraph has been revised as follows:

- * If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,530~~8,100~~ new residential units (approximately 16,540~~15,700~~ new residents) compared with existing conditions.

- * On page 2-22, Figure 2-6, Existing Hub Plan Area Height and Bulk Districts [Revised], have been revised to update current bulk designation. Specifically, the two parcels (Accessor's Block/Lot 3510/003 and 059) at the northwest corner of 10th and Minna streets are now shown as 130-L and the parcels on the southern side of Mission Street between 10th and Washburn streets (Accessors Block/Lot 3509/018, 019, 036, 037, 040, 041, and 042) are now shown with 160-M designations. This designation would remain for the proposed Hub Plan bulk designations. This edit is also reflected on Figure 2-7, Proposed Hub Plan Area Maximum Height and Bulk Districts [Revised].



- Legend**
- The Hub Plan Area
 - Individual Development Project Sites
 - 50-X** Numbers Indicate Height in Feet
Letters Indicate Bulk District
 - OS** Open Space District



Source: San Francisco Planning Department, 2019.

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Figure 2-6
Existing Hub Plan Area Height and
Bulk Districts [Revised]

- * On page 2-23, Figure 2-7, Proposed Hub Plan Area Maximum Height and Bulk Districts [Revised], would be revised to show that the heights are the maximum permitted.

On page 2-25, the second sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for 1500–1540 Market Street Project as follows:

- * This site is included as one of the Hub Plan sites considered ~~for upzoning as it would to~~ allow for an additional 50 feet above what was approved as part of the previous One Oak Project.

On page 2-26, the fifth sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for 10 South Van Ness Avenue project as follows:

- * This EIR for the Hub Plan considers this site for a maximum height limit of upzoning to 590 feet (consistent with the height analyzed as the variant considered in the parallel EIR).

On page 2-27, which continues onto page 2-28, the last sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for the 30 Otis Street project as follows:

- * This site is included as one of the Hub Plan sites considered ~~to for upzoning as it would~~ allow for an additional approximately 70 feet above what is being considered in the previously certified EIR.

On page 2-29, the last sentence of the “Notes” column, Table 2-1, Proposed Changes to Height Limits, has been updated for the 42 Otis Street project as follows:

- * This site is included as one of the Hub Plan sites considered ~~to for upzoning as it would~~ allow for an additional 15 feet above what was approved as part of the previously proposed project.

On page 2-29 in Chapter 2, Project Description, the “Notes” column in Table 2-1 for 170 Otis Street has been revised as follows:

- * This site contains multiple addresses/ parcels. The current site is split between 85-X and 125-X height and bulk zoning districts. The EIR analyzes at the programmatic level ~~the~~ changing the 125-X height and bulk zoning district to a 150-X height and bulk zoning district and proposed shifting of the 150-125-X zoning to a different portion of the site to better align it with the footprint of the existing office building, which has a height of approximately 115 feet. In addition, the proposed rezoning at 170 Otis Street would create a 45-X height and bulk-zoned buffer along the west side of the site, to provide for a more appropriate transition to the existing low-scale housing along that side, as well as a similar buffer from the residential building at 150 Otis Street.

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor's (30 Van Ness Development, LLC) updates to the design. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the project now proposes a podium up to 130 feet. Furthermore, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page 2-55 of the project description, the edits are as follows:

- * The proposed project at 30 Van Ness Avenue would include a ~~102~~-story podium, consisting of ground-floor retail and ~~104~~ floors of office space (levels ~~12~~-through ~~102~~). It would also include a residential amenity floor on level ~~103~~ and a residential tower with at least 350 but possibly up to 610 residential units on approximately ~~373~~ floors (levels ~~104~~ through ~~475~~), reaching a height of approximately 520 feet, with an additional 20 feet to the top of the rooftop mechanical features, as permitted by the planning code. The building podium would have a trapezoidal shape, with frontages along Market and Fell streets and Van Ness Avenue. The tower would be set back approximately ~~4950~~ feet from the east face of the podium, 12 feet from the Van Ness Avenue face of the podium, ~~4955~~ feet from the Fell Street face of the podium, and 85 feet from the Market Street face of the podium and situated at the center of the site. The podium height would be up to a maximum of ~~474~~130 feet at the roofline. The podium would be 275 feet long by ~~1642~~ feet wide, while the tower would be 141 feet long by 102 feet wide.

In the second paragraph, third sentence on page 2-56 of the project description, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed:

- * In addition, the site for the 30 Van Ness Avenue Project would include approximately 76,320 square feet of garage uses for ~~148243~~ vehicular parking spaces within two below-grade garage levels.

The first sentence of the last paragraph of page 2-56 has been updated for the design updates proposed for the 30 Van Ness Avenue Project:

- * The 30 Van Ness Avenue Project would include at least 350 residential units but possibly up to 610 residential units on floors ~~104~~ through ~~475~~.

The second paragraph of page 2-57 has been updated for the design updates proposed for the 30 Van Ness Avenue Project:

- * Two basement levels would include vehicle and bicycle parking spaces. The ground floor would include a total of up to approximately 21,000 square feet of retail space, including approximately 6,000 square feet of retail space and approximately 15,000 square feet of restaurant space. The ground floor would also include a lobby or vestibule for the office podium, a lobby for the residential tower, a bicycle storage area, and a loading dock. Levels ~~12~~-through ~~102~~ of the podium would include up to

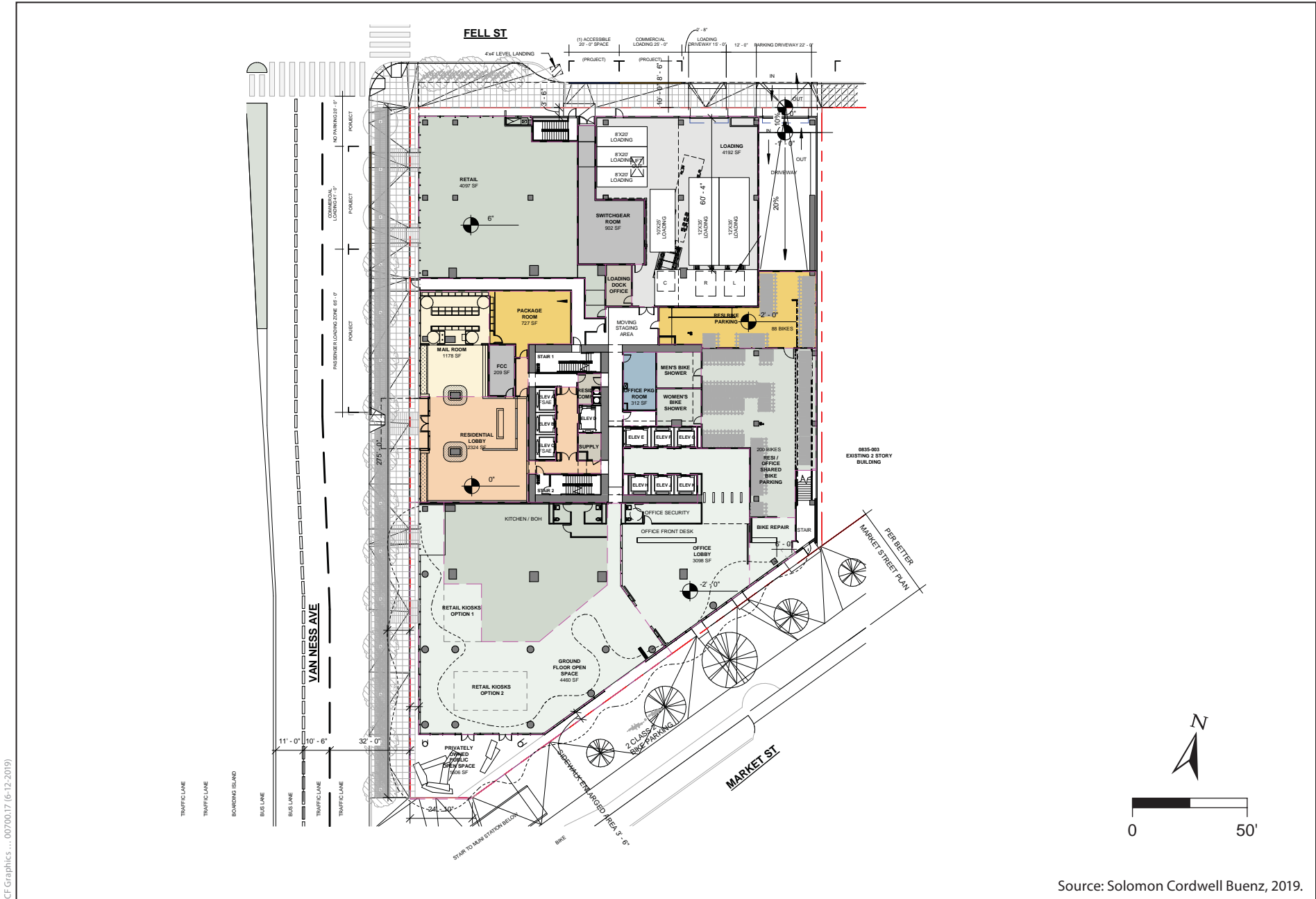
approximately 350,000 square feet of general office uses, with approximately 31,820 square feet of office uses per floor.

The third paragraph of page 2-57 has been updated for the design updates proposed for the 30 Van Ness Avenue Project:

- * Level ~~103~~, the first floor of the residential tower, would include open space in the form of a podium roof deck. Figure 2-20 shows the existing site plan. Figures 2-21 to 2-26a, pp. 2-59 to 2-64, show the proposed development on basement levels 1 and 2, the ground-floor level, levels ~~2~~, levels 3 through ~~98~~, and levels ~~911~~ through ~~1227~~ as well as a typical residential plan. Figures 2-27 and 2-28, pp. 2-65 and 2-66, show the proposed building elevations from the north and west.

The first sentence of the fourth paragraph of page 2-57 has been updated for the design updates proposed for the 30 Van Ness Avenue Project:

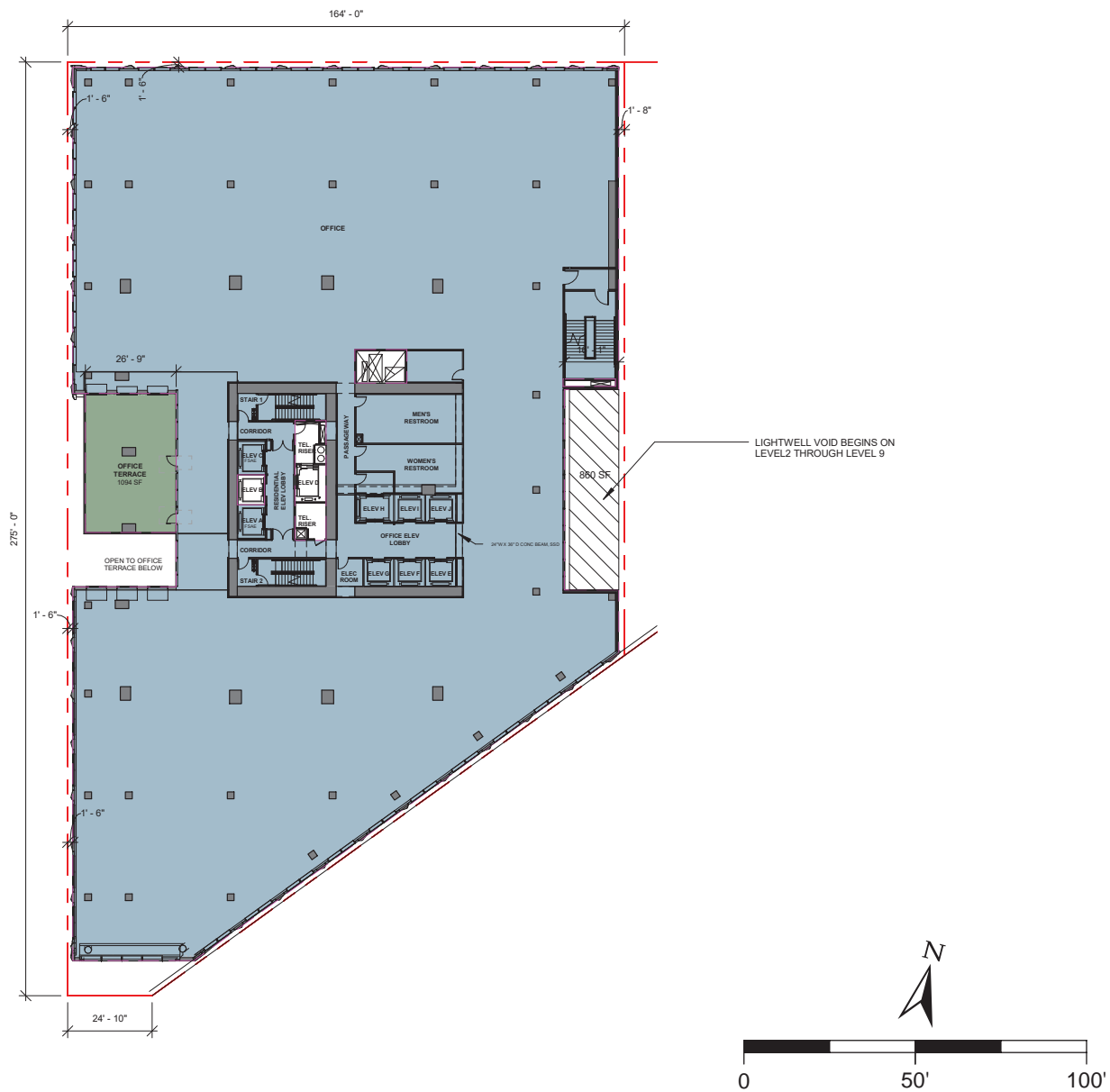
- * The proposed project at 30 Van Ness Avenue would provide approximately ~~3,300~~ 1,606 square feet of privately owned public open space on the ground floor.
- * On page 2-61, Figure 2-23, 30 Van Ness Avenue Project – Proposed Ground Floor Plan, has been revised to reflect design updates.
- * On page 2-62, Figure 2-24, 30 Van Ness Avenue Project – Proposed Levels 2-8 Plan, has been revised to reflect design updates.
- * Page 2-62a has been added for Figure 2-24a, 30 Van Ness Avenue Project – Proposed Levels 3–9 Plan.
- * On page 2-63, Figure 2-25, 30 Van Ness Avenue Project – Proposed Levels ~~9–12~~ 11–27 Plan, has been revised to reflect design updates.
- * On page 2-64, Figure 2-26, 30 Van Ness Avenue Project – Proposed Floor Plan Typical of ~~Floor 14 through 47~~ Levels 33–42, has been revised to reflect design updates.
- * Page 2-64a has been added for Figure 2-26a, 30 Van Ness Avenue Project – Proposed Floor Plan Typical of Level 47.
- * On page 2-65, Figure 2-27, 30 Van Ness Avenue Project – Proposed North Elevation, has been revised to reflect design updates.
- * On page 2-66, Figure 2-28, 30 Van Ness Avenue Project – Proposed West Elevation, has been revised to reflect design updates.



Source: Solomon Cordwell Buenz, 2019.

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Figure 2-23
30 Van Ness Avenue Project –
Proposed Ground Floor Plan [Revised]

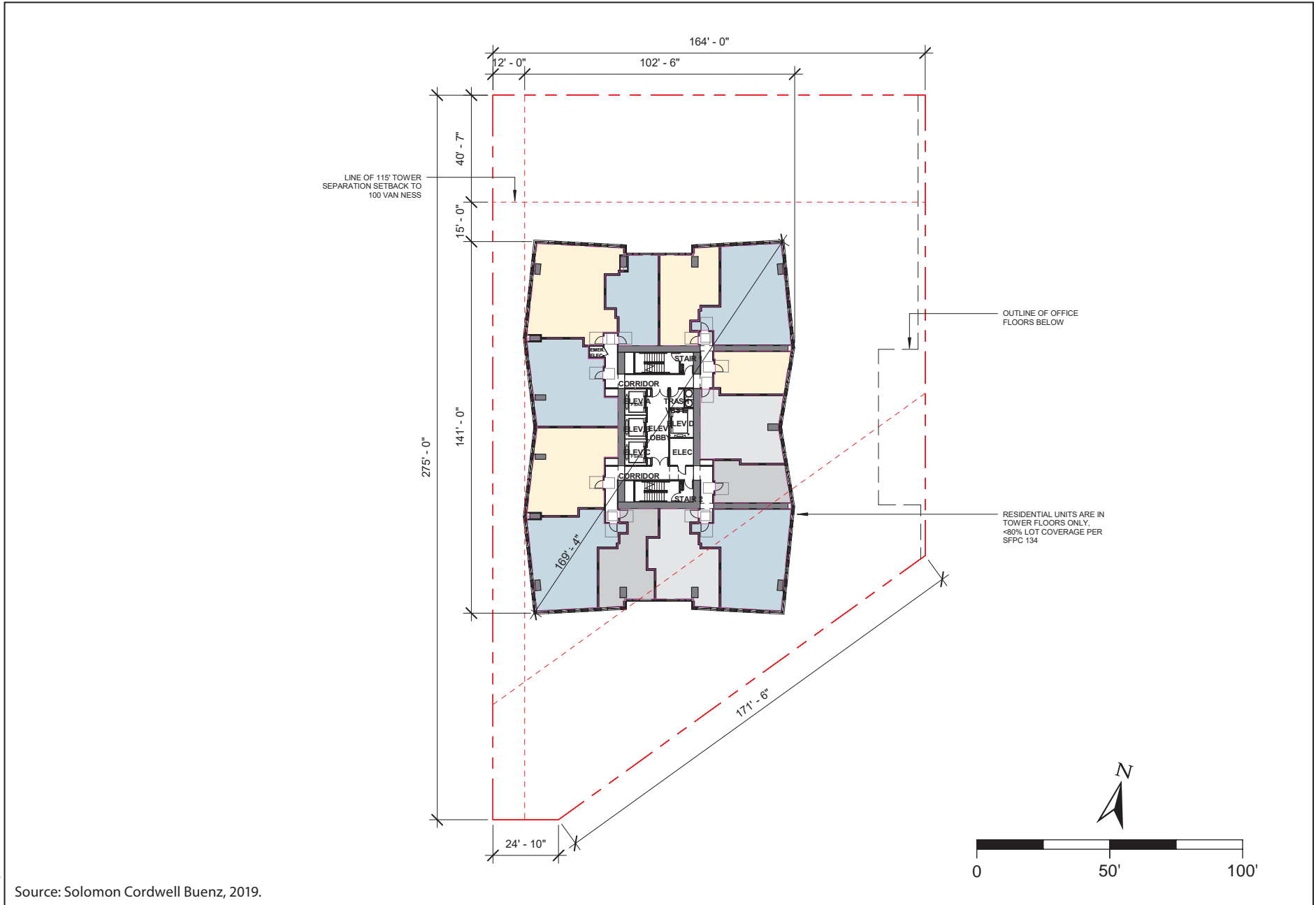


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Source: Solomon Cordwell Buenz, 2019.

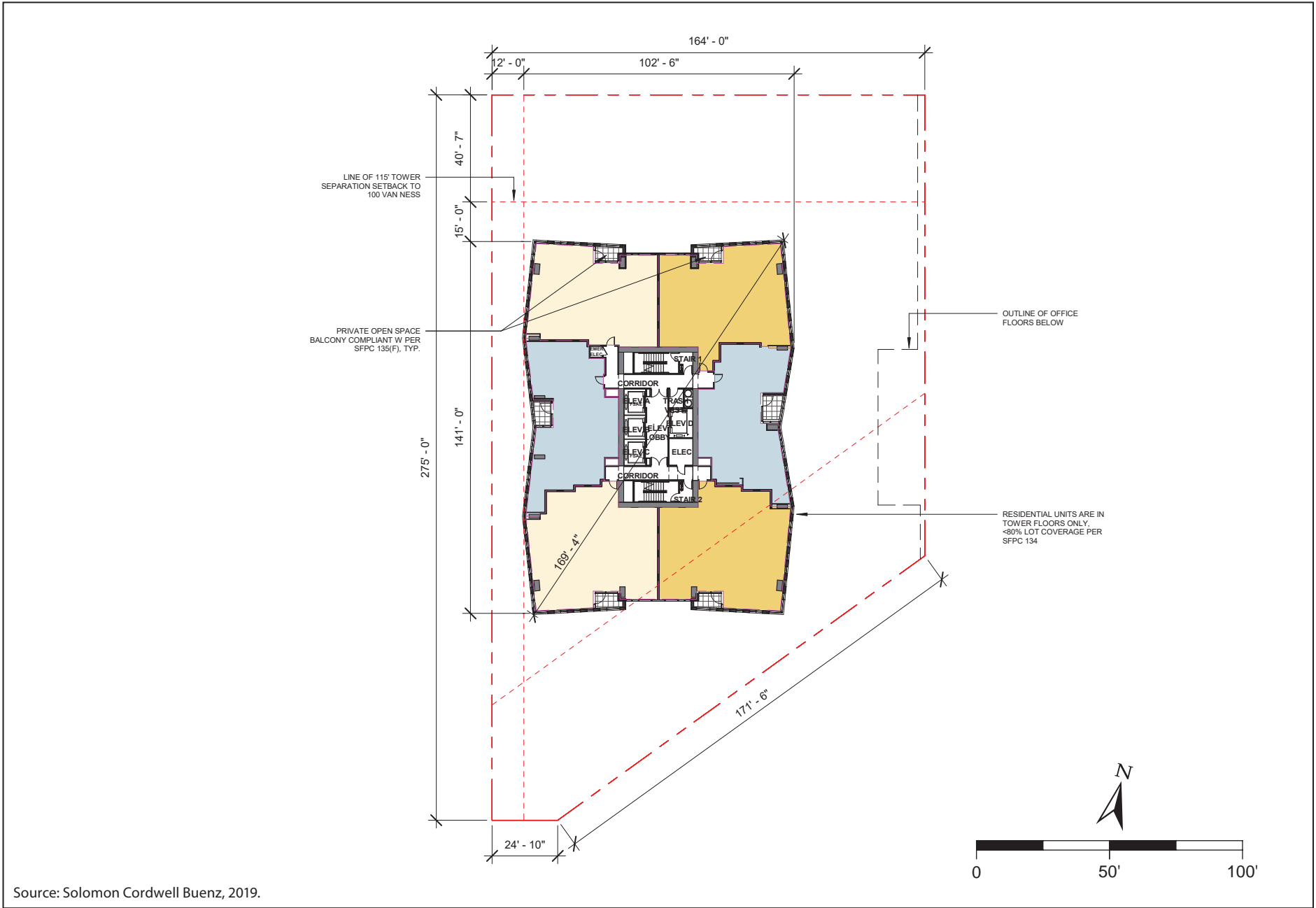
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 2016-014802ENV

Figure 2-24a
30 Van Ness Avenue Project –
Proposed Levels 3–9 Plan [New]



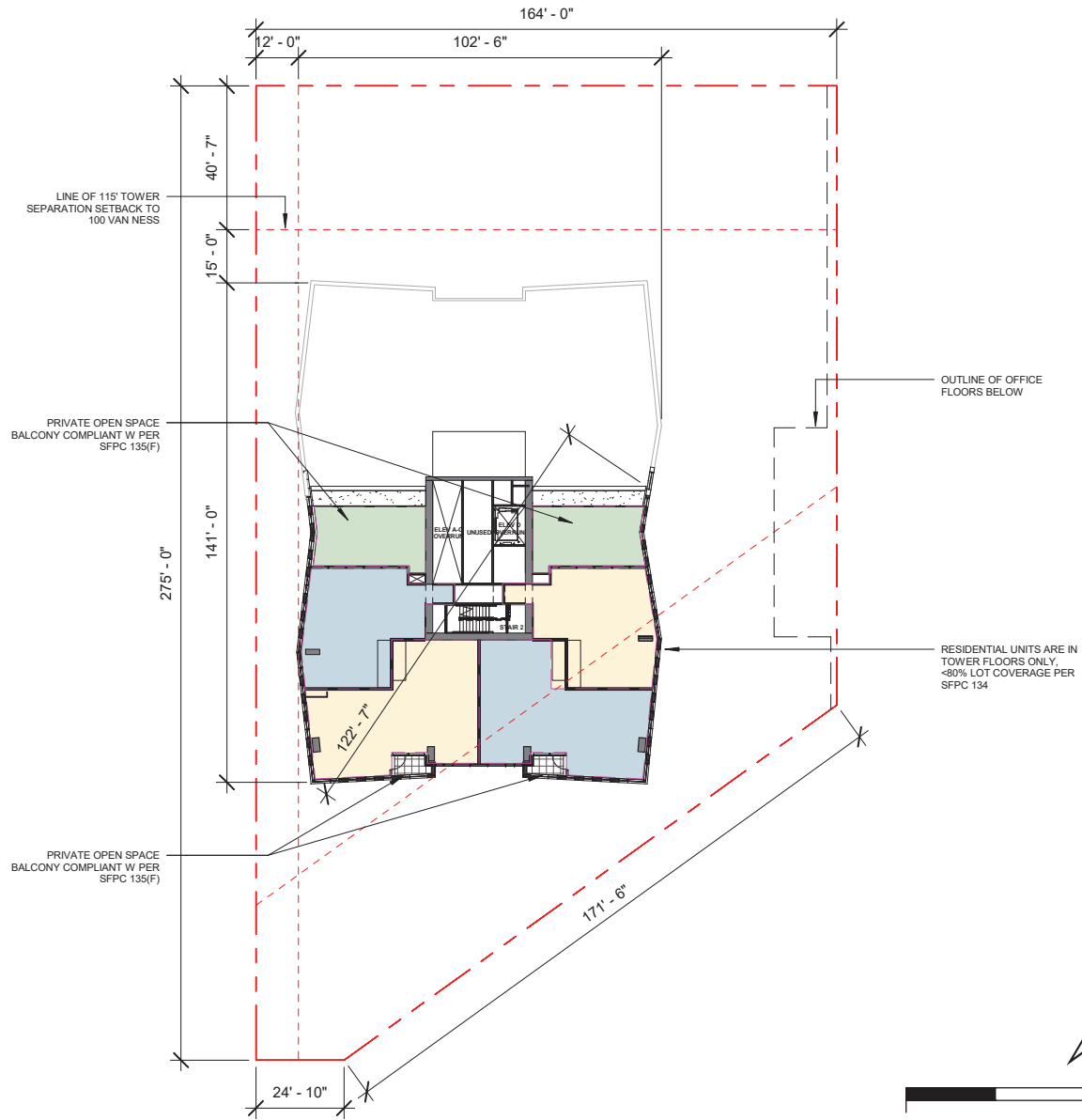
The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
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Figure 2-25
30 Van Ness Avenue Project –
Proposed Levels 9–12 11–27 Plan [Revised]



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Figure 2-26
30 Van Ness Avenue Project –
Proposed Floor Plan Typical of Floor 14 through 47 Levels 33–42 [Revised]

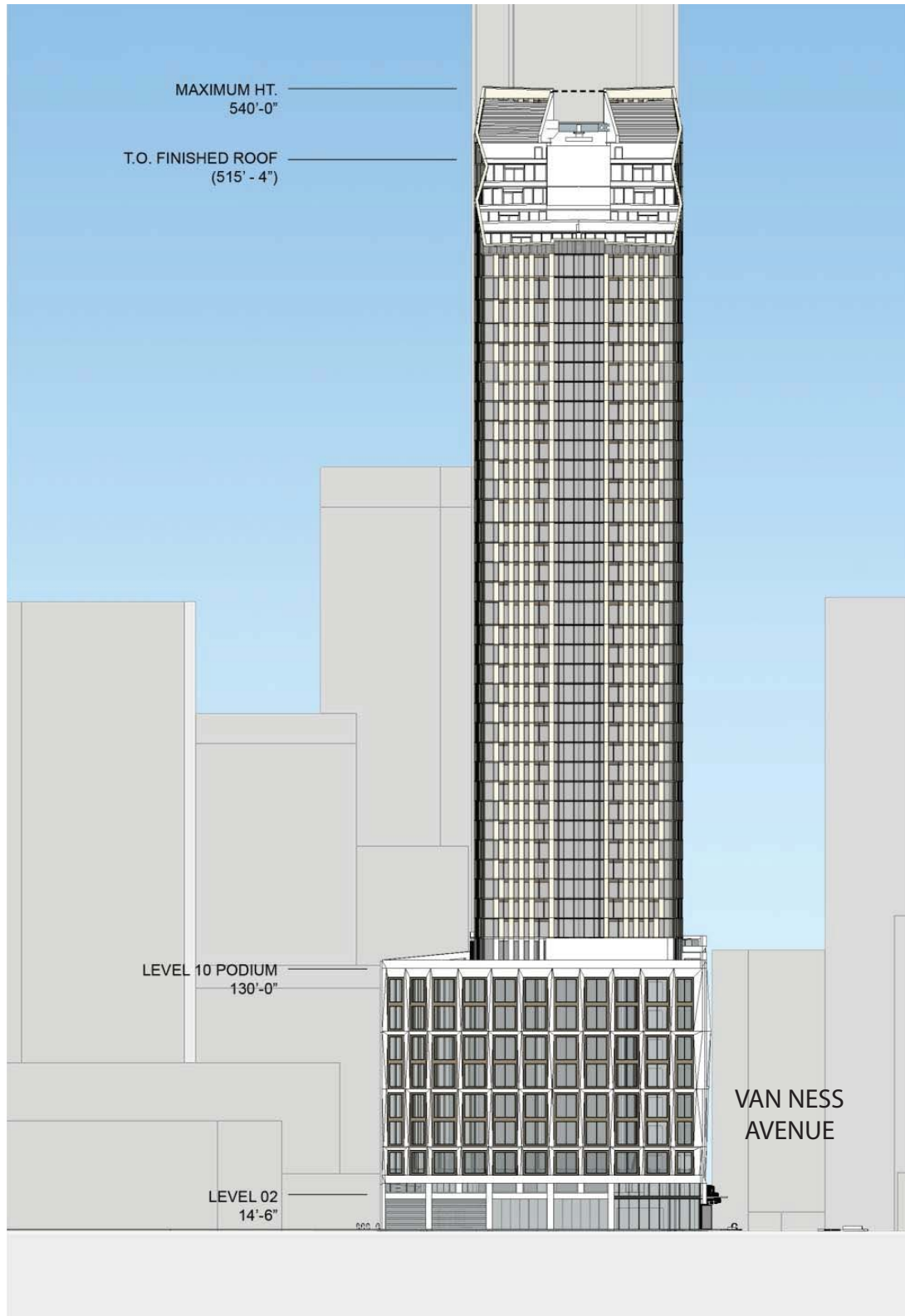


ICF Graphics ... 00700017 (11-25-2019)

Source: Solomon Cordwell Buenz, 2019.

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-26a
30 Van Ness Avenue Project –
Proposed Floor Plan Typical of Level 47 [New]

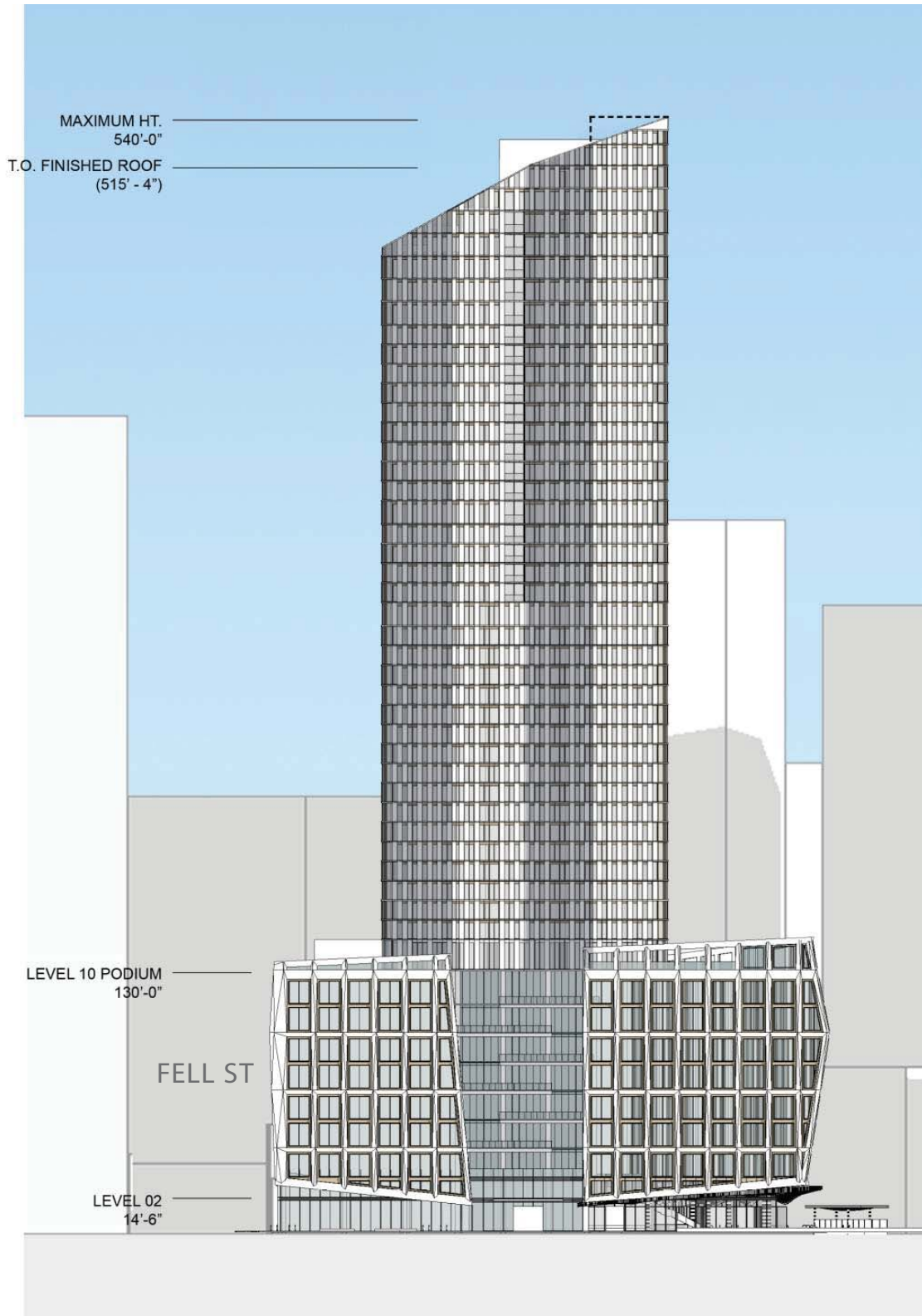


Source: Solomon Cordwell Buenz, 2019.

ICF Graphics... 00700117 (11-25-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-27
30 Van Ness Avenue Project –
Proposed North Elevation [Revised]



Source: Solomon Cordwell Buenz, 2019.

Figure 2-28
30 Van Ness Avenue Project –
Proposed West Elevation [Revised]

The second sentence of the fourth paragraph of page 2-67 has been updated for the design updates proposed for the 30 Van Ness Avenue Project:

- * As shown in Figure 2-23, p. 2-61, commercial and passenger loading would occur within the proposed ~~1067~~-foot on-street loading zone along the project frontage on Van Ness Avenue, in front of the residential lobby and retail entrance, and the ~~205~~-foot on-street loading zone along the project frontage on Fell Street.

Table 2-3 and associated text describing vehicular off-street parking has been modified on page 2-68 of the project description as follows, based on updates and reduction in the number of parking spaces proposed:

* **TABLE 2-3. PROPOSED VEHICULAR, LOADING, AND BICYCLE PARKING AT 30 VAN NESS AVENUE**

	Number of Parking Spaces
Vehicular Off-Street Parking Spaces (total) ¹	148243 ²
ADA	57
Electric-Vehicle Charging and Electric-Vehicle-Ready Spaces	25
Mechanical Stackers	142211
Car-Share Spaces	5
Off-Street Freight Loading Spaces	3
Off-Street Service Loading Spaces	3
Bicycle Parking Spaces (total)	349
Class 1 Spaces	301
Class 2 Spaces	48

Source: 30 Van Ness Development, LLC, 2019~~8~~.

¹ The project sponsor would seek a zoning change that would allow a mixed-use project in the Hub Plan area and provide at least 25% onsite (or 33% offsite) affordable housing to reallocate permitted vehicular parking spaces from nonresidential to residential land uses. Permitted vehicular parking for residential uses would be 0.25 space per unit, and permitted vehicular parking for nonresidential uses would total 7% of the occupied floor area. The total number of vehicular parking spaces would be approximately ~~148243~~.

² ~~Total number of vehicular parking spaces does not add up to 243 because the subsets of the 243 vehicular parking spaces overlap with each other. For example, some of the car share spaces are proposed as mechanical stackers.~~

The text on page 2-68 in Chapter 2, Project Description, for the 30 Van Ness Avenue Project has been revised as follows:

- * Within the two basement levels, 30 Van Ness Development, LLC, proposes a total of up to ~~148243~~ vehicular parking spaces.²⁵ These would include ~~five~~~~seven~~ Americans with Disabilities Act-compliant spaces, five electric-vehicle charging spaces, and 20 electric-vehicle-ready spaces.²⁶

The text on page 2-69 in Chapter 2, Project Description, for the 30 Van Ness Avenue Project has been revised as follows:

- * Construction would occur in several ~~overlapping~~ stages: (1) demolition of portions of the building, (2) excavation and shoring, (3) foundation and below-grade construction, (4) base buildings, (5) exterior and interior finishing, and (6) sidewalks and landscaping.

The first sentence of the seventh paragraph of page 2-71 has been updated for the design updates proposed for the 30 Van Ness Avenue Project:

- * The proposed project at 30 Van Ness Avenue would include two emergency generators to supply electricity to the building and facilities during a power outage; the generators would be located on level 109, on top of a 130120-foot podium.

The seventh sentence of the third paragraph of page 2-72 has been updated for the design updates proposed for the 98 Franklin Street Project:

- * A parapet would extend ~~an additional~~ approximately 320 feet above the roofline, as permitted by the planning code.

- * Figure 2-37 on page 2-82, 98 Franklin Street Project – Proposed West and North Elevations [Revised], has been revised to show the updated design of the parapet.

- * Page 2-82a has been added for Figure 2-37a, 98 Franklin Street Project – Proposed South Elevation [New], to show the south elevation and a rendering of the proposed project, as viewed from Market Street.

On page 2-92, under the list of approvals held by the San Francisco Planning Commission one bullet has been removed and another added for consistency with proposed planning code updates:

- *
 - ~~Approve a conditional use authorization to exempt the floor area attributed to the onsite inclusionary affordable units from the floor area ratio (Planning Code section 124).~~
 - Approve a conditional use authorization for a retail sales and service use larger than 6,000 gross square feet (Planning Code section 303).

On page 2-92, the following paragraph has been added after the list of approvals held by the San Francisco Planning Commission:

- *
 - **SAN FRANCISCO PLANNING COMMISSION AND PARK AND RECREATION COMMISSION**
 - Increase the maximum Absolute Cumulative Shadow Limit permitted on Civic Center Plaza by amending the memorandum jointly adopted by the San Francisco Planning Commission and Park and Recreation Commission in 1989 that implements section 295, per Proposition K, and establishes both qualitative criteria for evaluating shadow impacts and well as Absolute Cumulative Shadow Limits for new shadows on certain parks in the downtown area.

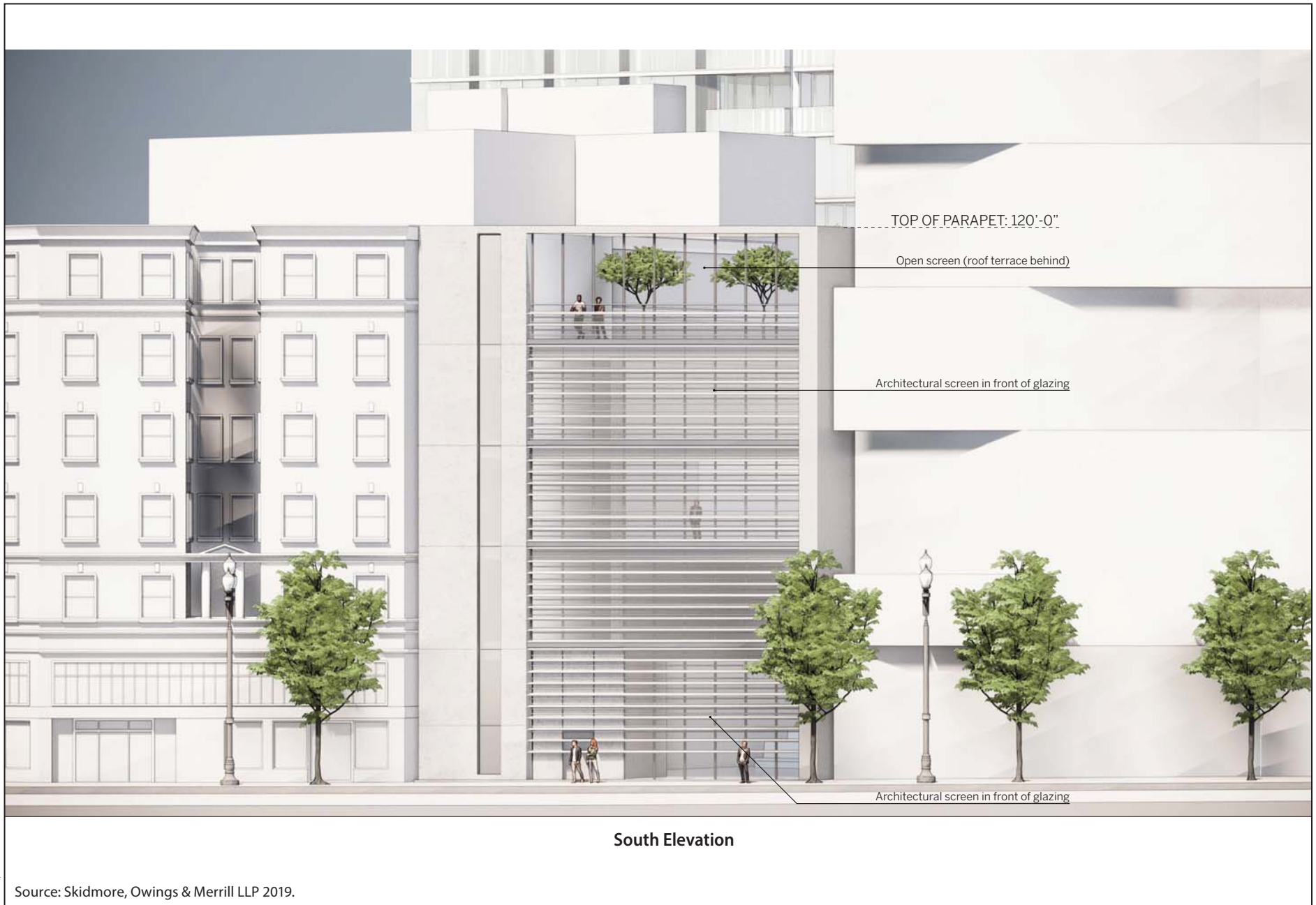


ICF Graphics ... 0070017 (11-31-2020)

Source: Skidmore, Owings & Merrill LLP 2019.

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 2016-014802ENV

Figure 2-37
98 Franklin Street Project –
Proposed West and North Elevations [Revised]



ICF Graphics ... 0070017 (11-25-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project,
 and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV,
 2016-014802ENV

Figure 2-37a
98 Franklin Street Project –
Proposed South Elevation [New]

On page 2-93, under the list of approvals held by the San Francisco Planning Commission one bullet has been removed and another added for consistency with proposed planning code updates:

- * ~~• Approve a conditional use authorization to exempt the floor area attributed to the onsite inclusionary affordable units from the floor area ratio requirement (Planning Code section 124)~~
- Determination that the project complies with the requirements of Planning Code section 295.

On page 2-94, the following paragraph has been added after the list of approvals held by San Francisco Public Works:

- * **SAN FRANCISCO RECREATION AND PARKS COMMISSION**
 - Recommendation to the San Francisco Planning Commission that the project complies with the requirements of Planning Code section 295.

D. ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION MEASURES

On page 3-4, in Chapter 3, Environmental Setting, Impacts, and Mitigation Measures, the second sentence under Approach to the Analysis has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

On page 3-4, the second sentence of the second paragraph in the Approach to the Analysis subsection, the text has been updated to clarify that four parcels would be zoned P:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G and NCT-3 to P at four government-owned sites in the southern portion of the Hub Plan area),

On page 3-4, the last sentence of the third paragraph has been revised as follows:

- * The Hub Plan could result in up to approximately ~~8,5308,100~~ housing units, ~~16,54015,700~~ new city residents, and a loss of approximately 1,920275 new jobs.

On page 3-4, the first sentence of the fourth paragraph has been revised as follows:

- * It is noted that the 8,530,810 housing units incorporates a 15 percent buffer beyond what was originally projected under the CEQA baseline for the plan (approximately 7,400,704 housing units).

On page 3-4, the fifth paragraph, which continues on page 3-6, has been revised as follows:

- * It is further noted that although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects is (1,534), surpasses the total number of jobs listed in Table 3-1 for the entire Hub Plan area is expected to lose jobs as a result of the Hub Plan (275), because it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net decrease of approximately 1,920 ~~275~~ jobs area wide.

On pages 3-5 and 3-6, Table 3-1 (this table also appears as Initial Study Table E.3-4 on pages E.3-9 through E.3-10; therefore, these revisions also apply to Initial Study Table E.3-4) has been revised as follows:

* **TABLE 3-1. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES**

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Residents			
The Hub Plan	<u>8,530,810</u> units ^a	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^b	<u>16,540</u> 15,700 residents ^c
30 Van Ness Avenue ^d	520,000 sf/610 units 229 studios 229 one-bedroom units 92 two-bedroom units 60 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^b	1,067 residents
98 Franklin Street ^d	384,080 sf/345 units 172 studios 86 one-bedroom units 54 two-bedroom units 33 three-bedroom units	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^b	587 residents

TABLE 3-1. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Employees			
The Hub Plan - Commercial	N/A	N/A	-1,920 275 employees ^e
30 Van Ness Avenue – Office	350,000 sf	240 sf/employee	1,460 employees ^f
30 Van Ness Avenue – Retail	21,000 sf	350 sf/employee	60 employees ^f
98 Franklin Street – Retail	3,100 sf	350 sf/employee	9 employees ^g
98 Franklin Street – Institutional (School)	81,000 sf	N/A	5 employees ^g

Source: San Francisco Planning Department, *Hub Plan Development Estimates and Methodology, June 13, 2019 Updated Population Estimates and Methodology, January 2020.*

^a Future residential development under the Hub Plan was calculated by taking anticipated total gross square footage and dividing by 1,200 gross square feet per residential unit. This number was then increased by 15 percent to account for the potential density bonuses, including the State Density Bonus Program, 100 percent Affordable Housing Bonus Program, and HOME-SF (the City and County of San Francisco’s [City’s] local density bonus program).

^b Two or more bedrooms.

^c Future population estimated from a weighted average of 1.94 persons per developed residential unit, assuming a unit mix of 20 percent studio, 40 percent one bedroom, and 40 percent two bedroom, with average occupancy of 1.3, 1.7, and 2.5, respectively. Future population estimate reflects the 15 percent increase in the number of residential units assumed in note “a,” above.

^d The total number of residential units and residents under the 30 Van Ness Avenue and 98 Franklin Street projects is included in the totals provided for the Hub Plan.

^e Jobs were estimated from anticipated gross square footage of development by use type. It is noted that the transportation model run that was completed before 170 Otis Street was added as one of the Hub Plan sites; however, there is a loss of approximately 1,920 approximately 125 employees that could be added on this site as a result from the proposed height increases zoning under the Hub Plan are accounted for in the 275 additional employees listed in this table under the Hub Plan.

^f This table presents the estimated maximum number of employees that would be generated by the 30 Van Ness Avenue Project. As discussed in Chapter 3, the existing uses at the project site include general office, pharmacy, and restaurant uses. Based on the employee density factors used by the planning department for non-residential uses, these existing uses, in combination, would yield approximately 816 existing employees at the site. Thus, the total number of net new employees that would be generated by the proposed 30 Van Ness Avenue Project is approximately 700. The SF-CHAMP transportation model that was run for the proposed project, with output that feeds into the transportation, air quality, and noise analyses in this EIR, nets out the existing uses at this site.

^g This table does not take into account the approximately two employees associated with the existing parking lot use at 98 Franklin Street.

E. CULTURAL RESOURCES

The fourth sentence of the first paragraph on Draft EIR p. 3.A-3 has been revised as follows:

- * ~~One~~Two historic districts that ~~is~~are adjacent to the boundaries of the Hub Plan area, the Elgin Park-Pearl Street Reconstruction Historic District and the Woodward Street Romeo Flats Reconstruction Historic District, does not overlap with the CEQA study area but ~~is~~are analyzed for impacts in this section because the potential exists for ~~its~~their settings to be altered.

Similarly, the following revisions have been made and bulleted text has been added under the “Historic Districts in the CEQA Study Area” heading on p. 3.A-31:

- * The following additional historic districts ~~is~~are adjacent to the CEQA study area and, as such, also ~~has~~have the potential to sustain ~~an~~ indirect impacts on ~~its~~their settings as a result of program- and project-level activities:
- **Elgin Park-Pearl Street Reconstruction Historic District:** The Elgin Park-Pearl Street Reconstruction Historic District was found eligible for listing in the California register in the Market and Octavia Survey under Criterion 1. The district is a concentration of two- to three-story residential flats buildings primarily located south of Market Street between Pearl Street and Elgin Park; the district boundary extends east to encompass one parcel that is adjacent to the Central Freeway on-ramp at Octavia Boulevard, such that the eastern boundary of the district is adjacent to the western boundary of the Hub Plan area. The Elgin Park-Pearl Street Reconstruction Historic District contains 35 contributors that represent the residential reconstruction of San Francisco’s neighborhoods following the 1906 earthquake. The district’s period of significance is 1906–1913.
 - **Woodward Street Romeo Flats Reconstruction Historic District:** The Woodward Street Romeo Flats Reconstruction Historic District was found eligible for listing in the California register in the Inner Mission North Historic Resource Survey under Criteria 1 and 3 and is currently under consideration for landmark designation under article 10 of the San Francisco Planning Code. The district is a medium-scale residential enclave located along Woodward Street, a narrow one-block street between Duboce Avenue and 14th Street. The Woodward Street Romeo Flats Reconstruction Historic District contains 19 contributors that represent the residential reconstruction of San Francisco’s neighborhoods following the 1906 earthquake. The district contains an unusual clustering of “Romeo” flats, a residential building type with distinctive front stairwells that is endemic to San Francisco and constructed only in the years immediately following the 1906 earthquake. The district’s period of significance is 1906–1912.

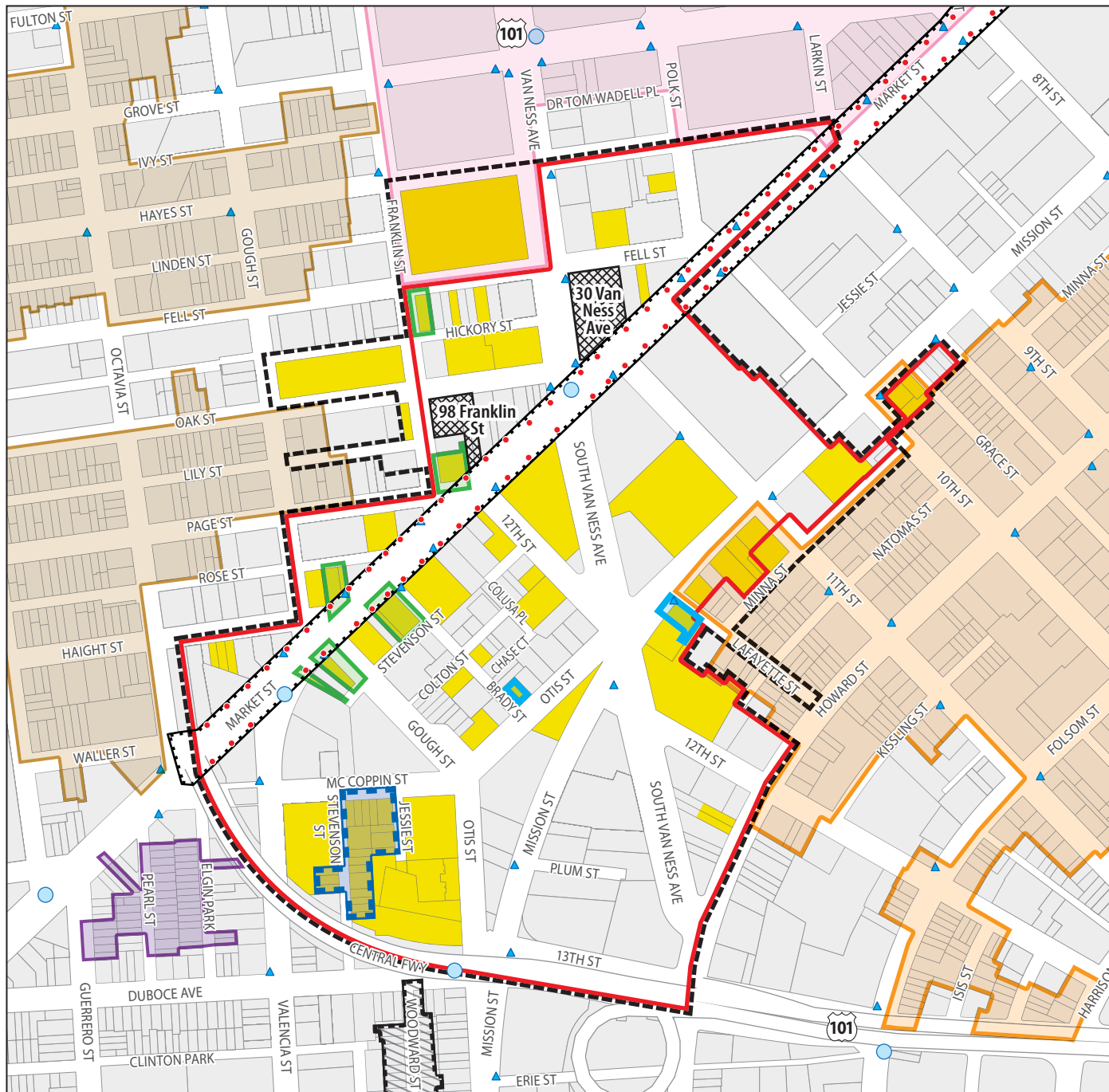
In addition, the following header and text have been added under the “Impacts on Historic Districts” heading on p. 3.A-83:

- * Woodward Street Romeo Flats Street Reconstruction Historic District
- Like the Elgin Park-Pearl Street Reconstruction Historic District, the Woodward Street Romeo Flats Reconstruction Historic District is adjacent to but not within the Hub Plan area. Located adjacent to the southern border to the Hub Plan area, the Woodward Street Romeo Flats Reconstruction Historic District is physically separated from the Hub Plan area by the elevated roadway of the Central Freeway, which runs over Duboce Avenue and 13th Street. No new height and bulk districts or streetscape or street network improvements are proposed within the Woodward Street Romeo Flats Reconstruction Historic District. The nearest height limit increase proposed under the Hub Plan is at 170 Otis Street, which is approximately 250 feet north of the northernmost extent of the historic district, on the other side of the elevated Central Freeway. Under the Hub Plan, the Woodward Street Romeo Flats Reconstruction Historic District would retain the essential physical characteristics that convey its historic character as a dense concentration of early 20th-century residential buildings. Potential new development occurring north of the district under the Hub Plan would cause only a negligible change in the district’s broader urban setting. The impact of the Hub Plan on the Woodward Street Romeo Flats Reconstruction Historic District would be *less than significant*.

Finally, the maps shown in Figure 3.A-1, “The Hub Plan Area Built Environment Resources,” and Figure 3.A-3, “The Hub Plan Built Environment Resources and Height Increases,” have been revised to include the boundaries of the Woodward Street Romeo Flats Reconstruction Historic District. Revised figures are provided on the following pages.

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor’s (30 Van Ness Development, LLC) updates to the design. On page 3.A-85, fifth paragraph, the second sentence has been edited as follows:

- * The individual development project at 30 Van Ness Avenue is analyzed below at the project level. This project involves retention of portions of the existing five-story building located at the northeastern corner of the Market Street/Van Ness Avenue intersection and construction of a ~~47~~45-story building that contains office, residential, and retail uses.



Legend

- CEQA Study Area
- The Hub Plan Area
- Individual Development Project Site
- Individual CEQA Historical Resource
- Path of Gold Light Standard

Historic Districts

- Auxiliary Water Supply System Cistern
- Auxiliary Water Supply System Hydrant
- Civic Center Landmark District
- Elgin Park-Pearl Street Reconstruction Historic District
- Hayes Valley Residential Historic District
- Jessie-McCoppin-Stevenson Streets Reconstruction Hist. District
- Market Street Cultural Landscape District
- Market Street Masonry Landmark District
- SOMA LGBTQ Historic District
- Western SOMA Light Industrial and Residential Historic District
- Woodward Street Romeo Flats Reconstruction Historic District

Note: Some historic districts extend outside the boundary of the map.



ICF Graphics... 0070017 (11-25-2019)

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 3.A-1
The Hub Plan Area Built Environment Resources
[Revised]

F. TRANSPORTATION AND CIRCULATION

On page 3.B-48, the first sentence has been revised as follows:

- * Subsequent development under the Hub Plan is projected to result in a net increase in the number of residential units in the Hub Plan area (i.e., 8,530~~8,100~~ additional units).

In the second paragraph, second sentence on page 3.B-66 of the Transportation and Circulation section, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed as follows:

- * The 30 Van Ness Avenue Project would provide a maximum of 148~~243~~ vehicular parking spaces for the 350 to 610 residential units; this analysis conservatively uses the lowest residential unit count of 350, or 0.42~~69~~ vehicular parking space per unit. The parking rate of 0.69~~42~~ space per unit is slightly ~~higher~~lower than the neighborhood's average of 0.56 space. ~~However, given that existing residential VMT per capita for the TAZ (i.e., 2.5 VMT per capita) is substantially lower than the threshold of 15 percent below the regional daily residential VMT per capita (i.e., 17.2 VMT per capita), it is unlikely that the 30 Van Ness Avenue Project's ratio of parking spaces per dwelling unit would result in an exceedance of the residential VMT threshold.~~ Therefore, the 30 Van Ness Avenue Project would not substantially increase VMT per capita with the residential use.

In the fourth paragraph, first sentence on page 3.B-69 of the Transportation and Circulation section, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed as follows:

- * The 30 Van Ness Avenue Project would provide a total of approximately 148~~243~~ vehicular parking spaces in below-grade levels that would be accessed from Fell Street, similar to where vehicular access to the existing building on the project site is provided (there are about 40 vehicular parking spaces on the ground floor and mezzanine level of the existing building on the project site).

In the third paragraph, first sentence on page 3.B-88 of the Transportation and Circulation section, vehicular off-street parking has been updated to show the reduction in the number of parking spaces proposed as follows:

- * The 30 Van Ness Avenue Project would provide 148~~243~~ vehicular parking spaces for 610 residential units and 371,000 square feet of commercial uses.

G. AIR QUALITY

Text on page 3.D-33 in Section 3.D, Air Quality, for the 30 Van Ness Avenue Project has been revised as follows:

- * The proposed construction plan for the 30 Van Ness Avenue Project is assumed to include one construction phase, consisting of several ~~overlapping~~ stages: demolition of portions of the building; excavation and shoring; foundation and below-grade construction; base buildings; exterior and interior finishing; and sidewalks and landscaping.

Footnote 45 on page 3.D-33 in Section 3.D, Air Quality, for the 30 Van Ness Avenue Project has been deleted as follows:

- * Construction would total approximately 1,149 working days occurring six days per week.⁴⁵
- ~~⁴⁵The number of working days does not double count for overlapping construction activities.~~

Text on page 3.D-34 in Section 3.D, Air Quality, for the 98 Franklin Street Project has been revised as follows:

- * The proposed construction plan for the 98 Franklin Street Project is assumed to include one construction phase, consisting of several ~~overlapping~~ stages.

Footnote 2 in Table 3.D-7 on page 3.D-57 in Section 3.D, Air Quality, for the 30 Van Ness Avenue Project has been revised as follows:

- * ² The length of construction refers to the approximate number of construction work days throughout project construction, ~~without double counting overlapping phases.~~

Footnote 5 in Table 3.D-9 on page 3.D-62 in Section 3.D, Air Quality, for the 98 Franklin Street Project has been revised as follows:

- * ⁵ The length of construction refers to the approximate number of construction work days throughout the project construction, ~~without double counting overlapping phases.~~

H. WIND

On page 3.E-19 in Section 3.E, Wind, the third sentence of the second paragraph has been updated to clarify that four parcels would be zoned to P designation:

- * However, the Hub Plan would rezone all of the Hub Plan area to Downtown General Commercial (C-3-G) zoning, with the exception of the two small pockets of existing Public (P) zoning and four new P parcels.

I. SHADOW

On page 3.F-1 in Section 3.F, Shadow, the last sentence of the second paragraph has been revised and a footnote added as follows:

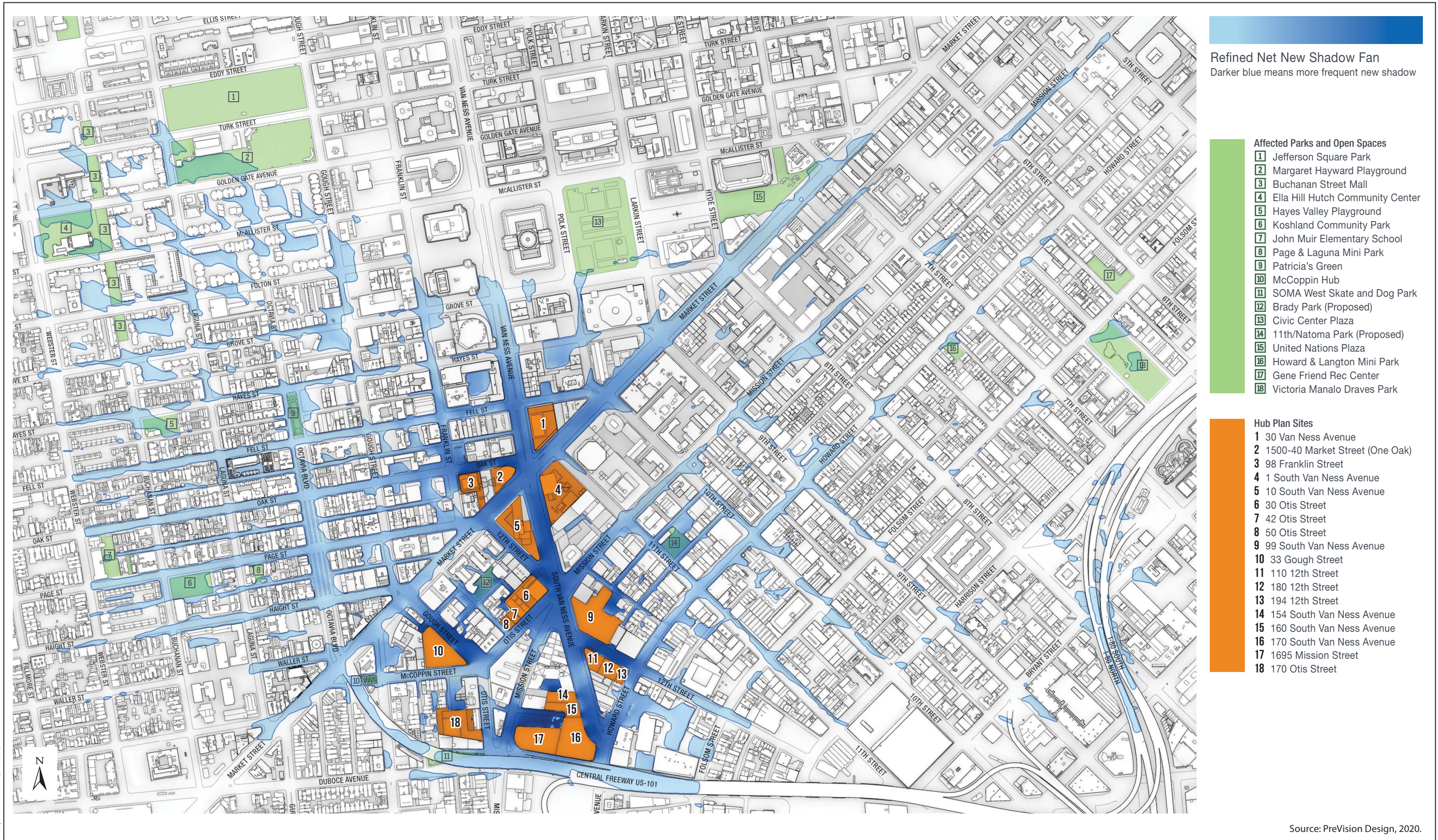
- * In addition, ~~two~~ three subsequent memoranda were prepared by Prevision Design to address design changes to 170 Otis Street³ under the Hub Plan, ~~and~~ the 30 Van Ness Avenue Project and the reduced impact on Civic Center Plaza,⁴ and the height of the 98 Franklin Street Project's parapet.^{4a}

³ Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in Hub Plan Shadow Due to Proposed Zoning Height Modification of 170 Otis Street." April 22, 2019.

⁴ Prevision Design. 2019. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in Shadow Effects of the Revised 30 Van Ness Avenue Project on Civic Center Plaza Relative to the Prior Version of the 30 Van Ness Avenue Project Analyzed in the Shadow Analysis Report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD) EIR (February 11, 2019)." June 5, 2019.

^{4a} Prevision Design. 2020. Memorandum to Alana Callagy, San Francisco Planning Department. "Changes in Shadow Effects due to revision to the 98 Franklin Street Project compared to the February 11, 2019 shadow analysis report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)." February 12, 2020.

- * On pages 3.F-19 and 3.F.21, Figures 3.F-2 and 3.F-4, respectively, have been updated, based on Prevision Design's 2020 memorandum.

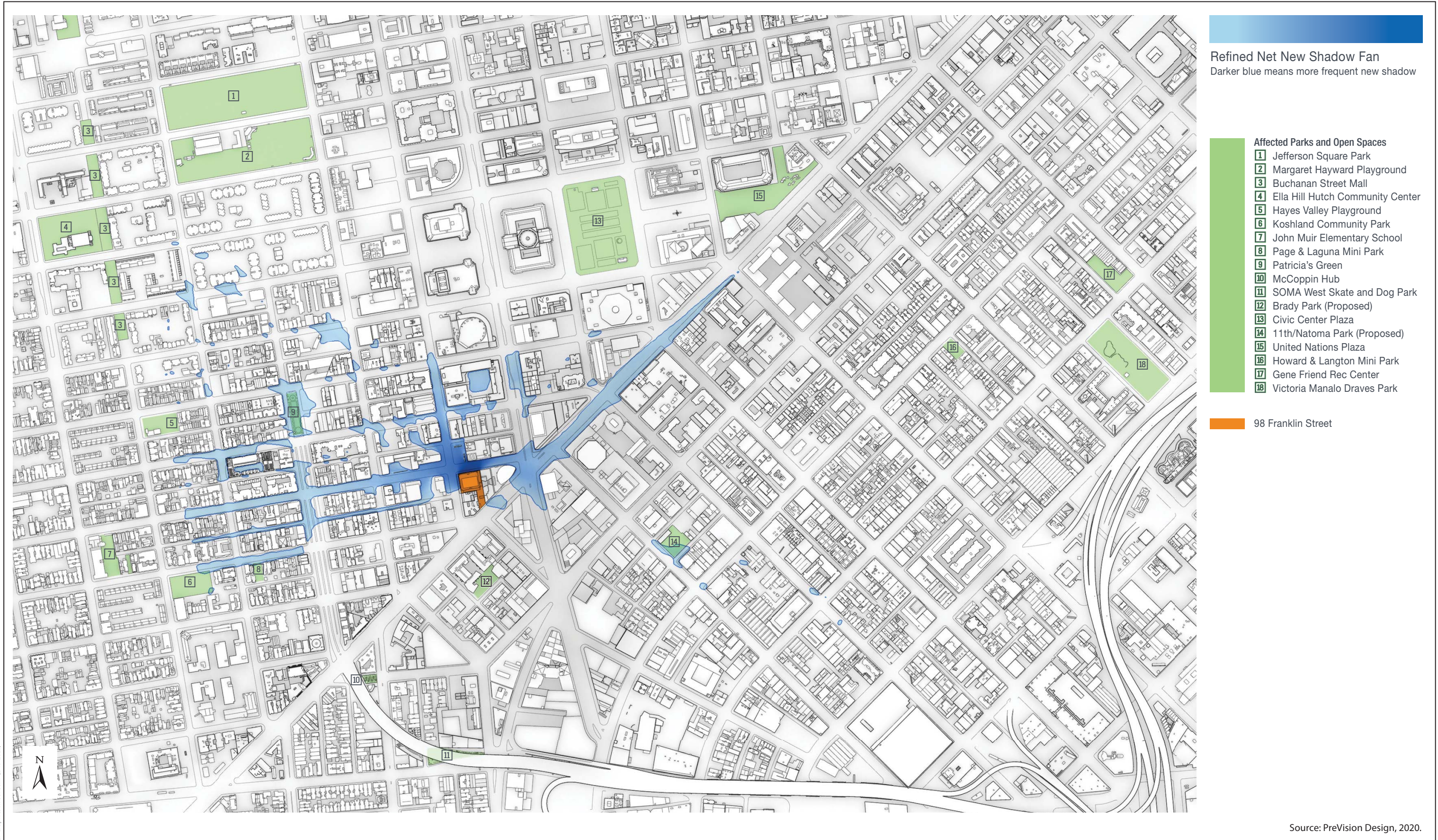


Refined Net New Shadow Fan
 Darker blue means more frequent new shadow

- Affected Parks and Open Spaces**
- 1 Jefferson Square Park
 - 2 Margaret Hayward Playground
 - 3 Buchanan Street Mall
 - 4 Ella Hill Hutch Community Center
 - 5 Hayes Valley Playground
 - 6 Koshland Community Park
 - 7 John Muir Elementary School
 - 8 Page & Laguna Mini Park
 - 9 Patricia's Green
 - 10 McCoppin Hub
 - 11 SOMA West Skate and Dog Park
 - 12 Brady Park (Proposed)
 - 13 Civic Center Plaza
 - 14 11th/Natoma Park (Proposed)
 - 15 United Nations Plaza
 - 16 Howard & Langton Mini Park
 - 17 Gene Friend Rec Center
 - 18 Victoria Manalo Draves Park

- Hub Plan Sites**
- 1 30 Van Ness Avenue
 - 2 1500-40 Market Street (One Oak)
 - 3 98 Franklin Street
 - 4 1 South Van Ness Avenue
 - 5 10 South Van Ness Avenue
 - 6 30 Otis Street
 - 7 42 Otis Street
 - 8 50 Otis Street
 - 9 99 South Van Ness Avenue
 - 10 33 Gough Street
 - 11 110 12th Street
 - 12 180 12th Street
 - 13 194 12th Street
 - 14 154 South Van Ness Avenue
 - 15 160 South Van Ness Avenue
 - 16 170 South Van Ness Avenue
 - 17 1695 Mission Street
 - 18 170 Otis Street

Source: PreVision Design, 2020.



On page 3.F-42 in Section 3.F, Shadow, the text under the Group A bullet has been revised as follows:

* Group A: Projects identified for upzoning and seeking individual project-level environmental clearance through this EIR (two sites): 30 Van Ness Avenue and 98 Franklin Street. For the two individual projects seeking project-level environmental clearance through this EIR, the buildings have been modeled, based on the ~~current~~ plans on file for those projects at the time of modeling. The 98 Franklin Street analysis is based on plans dated September 6, 2018, and the 30 Van Ness Avenue analysis is based on plans dated September 13, 2018. However, since the September 2018 plans, both projects have incurred updates to the designs. The 30 Van Ness Avenue Project has been redesigned to reduce shadow impacts on Civic Center Plaza. Therefore, the analysis of impacts on Civic Center Plaza (in Impact SH-2, below) has been updated with the revised plans.¹⁷ However, the analysis of other affected open spaces represents a version of the 30 Van Ness Avenue Project that is larger in mass and bulk than the version described in the shadow analysis for Civic Center Plaza. Because the mass of the revised 30 Van Ness Avenue Project has been reduced since the September 2018 plans, shadow effects of the revised project would be equal to or lesser than the shadow described in the analysis of the sections of the other parks/open spaces. In addition, the shadow fan diagrams shown in this document reflect shadow cast by 30 Van Ness Avenue, as proposed in September 2018. Because the shadow fan has not been altered to reflect this change, the figures present a more conservative scenario with respect to the shadow effects of the 30 Van Ness Avenue Project.

The 98 Franklin Street Project design now includes a taller parapet measuring approximately 32 feet above the proposed roofline. The addition of the taller parapet would result in a slight increase in amount of shadow on parks previously identified as being shaded by the Hub Plan. Therefore, the analysis of the impacts of the 98 Franklin Street Project on Koshland Community Park, Page and Laguna Mini Park, Patricia’s Green, and the future 11th/Natoma Park Site (in Impact SH-2, below) has been updated for this design update. In addition, analysis for the Hub Plan (in Impact SH-1, below) has also been updated for the revised plan set for the 98 Franklin Street Project.

On page 3.F-44 in Section 3.F, Shadow, Table 3.F-1 has been revised as follows:

* **TABLE 3.F-1. SHADOW IMPACT SUMMARY – THE HUB PLAN**

Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	The Hub Plan		
			% Increase	Timing	CEQA Conclusion
6. Koshland Community Park	RPD	15.45%	0.332%	Spring/Summer AM (113–125 days)	LTS

Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	The Hub Plan		
			% Increase	Timing	CEQA Conclusion
8. Patricia’s Green	RPD	18.06%	1.4953%	Fall/Win/Spr AM (254–266 days)	LTS
14. Future 11 th /Natoma Park (Proposed)	RPD	22.09%	6.8177%	Year-Round PM (351–363 days)	--

Notes:
 For Koshland Community Park, Patricia’s Green, and the Future 11th/Natoma Park (proposed), the value of the percent increase also includes design changes from the 30 Van Ness Avenue Project due to the updated plans, as discussed in Prevision Design’s 2020 memorandum, “Changes in Shadow Effects Due to Revisions to the 98 Franklin Street Project Compared to the February 11, 2019 Shadow Analysis Report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD).”

n/a = shadow load not calculated for non-RPD parks and open spaces
 SU = significant and unavoidable
 LTS = less than significant
 NI = no impact
 RPD = San Francisco Recreation and Parks Department
 SFRED = City and County of San Francisco Real Estate Division
 SFUSD = San Francisco Unified School District
 POPOS = privately owned public open space
 PW = San Francisco Public Works

On page 3.F-50 in Section 3.F, Shadow, the first sentence of third paragraph is revised as follows:

- * The Hub Plan would result in net new shadow cast on Koshland Community Park, adding approximately 436,679,427,055 net new annual sfh of shadow and increasing the sfh of shadow by 0.332 percent annually above current levels. This increase would result in a new annual total shadow load of 15.787 percent.

On page 3.F-50 in Section 3.F, Shadow, the last sentence of the fourth paragraph is revised as follows:

- * Throughout the affected period, the average size of shadows, when present, would be 12,356,119,914 sf (about 34.6333 percent of the total park area).

On page 3.F-51 in Section 3.F, Shadow, the third sentence of third paragraph under the Page and Laguna Mini Park (Location 8) discussion is revised as follows:

- * The largest net new shadow cast by the Hub Plan would occur at 7:156 a.m. on May 24 June 5 and July 519 and cover 1,442,1349 sf, equivalent to 21.905 percent of the total area of Page and Laguna Mini Park. Throughout the affected period, the average size of shadows, when present, would be 836,29 sf (about 12.76 percent of the total park area).

On page 3.F-52 in Section 3.F, Shadow, the first two sentences of the second paragraph are revised as follows:

- * The Hub Plan would result in net new shadow cast on Patricia’s Green, adding approximately 993,312,018,855 net new annual sfh of shadow and increasing the sfh of

shadow by ~~1.4953~~ percent annually above current levels. This increase would result in a new annual total shadow load of ~~19.559~~ percent.

On page 3.F-52 in Section 3.F, Shadow, the third paragraph is revised as follows:

* The days of maximum net new shadow on the park due to the Hub Plan would occur on March 8 and October 4, when the Hub Plan would shade the majority of the park starting at 8:09 a.m. and be present for approximately ~~518~~ minutes. The duration of the Hub Plan-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 69 minutes, with an average duration of about 33 minutes across all affected dates. The largest net new shadow cast by the Hub Plan would occur at 8:45 a.m. on March ~~84~~ and October ~~411~~ and cover ~~15,747,404~~ sf, equivalent to ~~886.0~~ percent of the total area of Patricia’s Green. Throughout the affected period, the average size of shadows, when present, would be ~~6,310,428~~ sf (about ~~35.29~~ percent of the total park area).

On page 3.F-56 in Section 3.F, Shadow, the first and second sentences of the first paragraph are revised as follows:

* The Hub Plan would result in net new shadow cast on 11th/Natoma Park site, adding approximately ~~4,957,532~~~~4,931,925~~ net new annual sfh of shadow and increasing the sfh of shadow by ~~6.8177~~ percent annually above current levels. This increase would result in a new annual total shadow load of ~~28.9086~~ percent.

On page 3.F-56 in Section 3.F, Shadow, the last sentence of the second paragraph is revised as follows:

* Throughout the affected period, the average size of shadows, when present, would be ~~8,310,829~~ sf (about ~~42.5126~~ percent of the total park area).

On page 3.F-62 in Section 3.F, Shadow, Table 3.F-2 is revised as follows:

* **TABLE 3.F-2. SHADOW IMPACT SUMMARY FOR 30 VAN NESS AVENUE PROJECT AND 98 FRANKLIN STREET PROJECT**

Park/ Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	30 Van Ness Avenue Project			98 Franklin Street Project		
			% Increase	Timing	CEQA Conclusion	% Increase	Timing	CEQA Conclusion
Koshland Community Park	RPD	15.45%	0.02%	Spring/ Summer AM (29–41 days)	LTS	– <u>0.003%</u>	– Spring/ Summer (57–69 days)	NI <u>LTS</u>
Page and Laguna Mini Park	RPD	50.80%	--	--	NI	0.053%	Summer AM (57–69 days)	LTS

Park/ Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	30 Van Ness Avenue Project			98 Franklin Street Project		
			% Increase	Timing	CEQA Conclusion	% Increase	Timing	CEQA Conclusion
Patricia's Green	RPD	18.06%	0.36%	Fall/ Spring AM (84-96 days)	LTS	0.4539%	Fall/ Spring AM (254-266 98-110 days)	LTS
Future 11 th /Natoma Park (proposed)	RPD	22.09%	--	--	--	0.185%	Summer PM (85-97 days)	--

On page 3.F-66 in Section 3.F, Shadow, the fourth paragraph is revised as follows:

* **98 Franklin Street Project.** The 98 Franklin Street Project would not generate any net new shadow that would fall on Koshland Community Park; therefore, no impact would occur, adding approximately 3,963 net new annual sfh of shadow and increasing the sfh of shadow by 0.003 percent annually above current levels. This increase would result in a new annual total shadow load of 15.45 percent. Net new shadow from the 98 Franklin Street Project would occur within the first nine minutes of the daily analysis period between approximately April 20 and August 22. Net new shadow would fall only along the northeastern and southeastern corners of the park, affecting a portion of the community garden area in the northeastern corner and a wooded area in the southeastern corner.

The days of maximum net new shadow on the park due to the 98 Franklin Street Project would occur on June 21, when the 98 Franklin Street Project would shade the northeastern and southeastern corners of the park, starting at 6:46 a.m. and being present for approximately nine minutes. The duration of 98 Franklin Street Project-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and nine minutes, with an average duration of about five minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at 6:48 a.m. on June 14 and 28 and cover 783 sf—equivalent to 2.2 percent of the total area of Koshland Community Park. Throughout the affected period, the average size of shadows, when present, would be 688 sf (about 1.9 percent of the total park area).

The portions of Koshland Community Park that would receive net new shadow from the 98 Franklin Street Project would include the community garden area in the northeastern corner and a wooded area in the southeastern corner. Overall, features affected by the 98 Franklin Street Project would receive net new shadow only over the spring and summer in the early mornings prior to 7:15 a.m., times when lower levels of

park use would be likely. Therefore, the 98 Franklin Street Project would result in less-than-significant shadow impacts on Koshland Community Park.

On page 3.F-66 in Section 3.F, Shadow, the last paragraph is revised as follows:

- * 98 Franklin Street Project. The 98 Franklin Street Project would result in net new shadow cast on the Page and Laguna Mini Park, adding approximately ~~8,039~~12,565 net new annual sfh of shadow and increasing the sfh of shadow by ~~0.053~~ percent annually above current levels. This increase would result in a new annual total shadow load of ~~50.853~~ percent. Net new shadow from 98 Franklin Street would occur within the first ~~220~~ minutes of the daily analysis period between approximately May 18 and July 25. Net new shadow would fall only on the northern edge the park, affecting one public entry point, a portion of the paved walkways, as well as some grassy or landscaped areas.

On page 3.F-67 in Section 3.F, Shadow, the first paragraph is revised as follows:

- * The days of maximum net new shadow on the park due to the 98 Franklin Street Project would occur on June ~~21~~ ~~7~~ and July ~~5~~, when the 98 Franklin Street Project would shade the northern edge of the park, starting at ~~6:46~~52 a.m. and being present for approximately ~~214~~ minutes. The duration of 98 Franklin Street Project-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and ~~220~~ minutes, with an average duration of about ~~153~~ minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at ~~6:48~~6 a.m. on June 14 and 28 and cover ~~943868~~ sf, equivalent to ~~14.313~~2 percent of the total area of Page and Laguna Mini Park. Throughout the affected period, the average size of shadows, when present, would be ~~769669~~ sf (about ~~11.710~~2 percent of the total park area).

On page 3.F-68 in Section 3.F, Shadow, the first three paragraphs are revised as follows:

- * **98 Franklin Street Project.** 98 Franklin Street Project would result in net new shadow cast on Patricia's Green, adding approximately ~~298,323~~262,065 net new annual sfh of shadow and increasing the sfh of shadow by ~~0.450~~39 percent annually above current levels. This increase would result in a new annual total shadow load of ~~48.45~~ 18.51 percent. Net new shadow from the 98 Franklin Street Project would occur within the first ~~524~~ minutes of the daily analysis period between February 2 and March 28 and again between September 14 and November 7. Net new shadow would affect all portions of the park at various times throughout the year.

The days of maximum net new shadow on the park due to the 98 Franklin Street Project would occur on March 1 and October 11, when the 98 Franklin Street Project would shade the central and northern portions of the park, starting at 8:16 a.m. and being present for approximately ~~513~~ minutes. The duration of 98 Franklin Street Project-generated net new shadow would vary throughout the year, with net new shadow

lasting between zero and ~~5246~~ minutes, with an average duration of about ~~4036~~ minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at 8:45 a.m. on March ~~81~~ and October ~~411~~ and cover ~~10,822,314~~ sf, equivalent to ~~60.557.6~~ percent of the total area of Patricia's Green. Throughout the affected period, the average size of shadows, when present, would be ~~4,558,458~~ sf (about ~~25.524.9~~ percent of the total park area).

On page 3.F-69 in Section 3.F, Shadow, the first two sentences of the second paragraph under the heading "Future 11th/Natoma Park Site (Location 14) (Provided for Informational Purposes)" are revised as follows:

* **98 Franklin Street Project.** The 98 Franklin Street Project would result in net new shadow cast on the 11th/Natoma Park site, adding approximately ~~130,635,112,157~~ net new annual sfh of shadow and increasing the sfh of shadow by ~~0.185~~ percent annually above current levels. This increase would result in a new annual total shadow load of ~~22.274~~ percent.

On page 3.F-69 in Section 3.F, Shadow, the third paragraph under the heading "Future 11th/Natoma Park Site (Location 14) (Provided for Informational Purposes)" is revised as follows:

* The days of maximum net new shadow on the park due to the 98 Franklin Street Project would occur on June ~~721~~ and July ~~5~~, when the 98 Franklin Street Project would shade the southern half of the site of the future park, starting just prior to 7 p.m. and being present for approximately ~~323~~ minutes. The duration of 98 Franklin Street-generated net new shadow would vary throughout the year, with net new shadow lasting between zero and 33 minutes, with an average duration of about 26 minutes across all affected dates. The largest net new shadow cast by the 98 Franklin Street Project would occur at 7 p.m. on June ~~14~~ and ~~2821~~ and cover ~~4,925,256~~ sf, equivalent to ~~25.221.7~~ percent of the total area of the 11th/Natoma Park site. Throughout the affected period, the average size of shadows, when present, would be ~~3,070,2613~~ sf (about ~~15.713.3~~ percent of the total park area).

On page 3.F-71 in Section 3.F, Shadow, the first sentence of the third paragraph has been revised as follows:

* **98 Franklin Street Project.** The 98 Franklin Street Project would result in net new shadow cast on ~~the~~ Koshland Community Park, Page and Laguna Mini Park, Patricia's Green, the proposed 11th/Natoma Park site, and public streets and sidewalks.

On page 3.F-74 in Section 3.F, Shadow, Table 3.F-3 has been revised as follows:

			Cumulative		CEQA Conclusion		
Park/Open Space (Jurisdiction)	Jurisdiction	Existing Shadow	% Increase	Timing	Hub Plan Contribution	30 Van Ness Avenue Contribution	98 Franklin Street Contribution
United Nations Plaza	PW	n/a	0.01% n/a	Winter PM	No Cumulative Impact	No Cumulative Impact	No Cumulative Impact

J. OTHER CEQA CONSIDERATIONS

On page 4-4, in Chapter 4, Other CEQA Considerations, the third sentence of the last paragraph would be revised as follows:

* Under the proposed zoning, there would be two zoning districts, Downtown General Commercial (C-3-G) and Public (P), and the Van Ness and Market ~~Downtown~~ Residential Special Use District (SUD) would be expanded to encompass the entire Hub Plan area.

On page 4-4, the second to last sentence of the fourth paragraph has been revised as follows:

* If all of the sites identified in Table 2-1 were to be developed to the proposed maximum height limit, the changes would result in approximately 8,530~~8,100~~ new residential units (approximately 16,540~~15,700~~ new residents) compared with existing conditions.

On page 4-7, the first paragraph has been revised as follows:

* Designation of the Hub HSD is a procedural change that may reduce the time required for approval of projects if certain criteria are met, allowing for faster approval of qualified housing projects. The two individual development projects at 30 Van Ness Avenue and 98 Franklin Street are private development projects that include housing, retail, office space, and institutional uses (i.e., the French American International School [FAIS]). The Hub Plan, Hub HSD, and the two individual development projects would induce growth by constructing new housing units. Development under the Hub Plan could result in housing for up to 16,540~~15,700~~ new city residents, assuming an occupancy rate of 1.94 people per unit in the proposed 8,530~~8,100~~ new units (see Section E.3, Population and Housing, of the initial study, Appendix B). This total includes the individual development projects at 30 Van Ness Avenue and 98 Franklin Street, which would result in housing for a combined total of approximately 1,654 residents. The Hub Plan could also result in a loss of up to approximately 1,920~~275~~ new jobs. Although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) would result in new jobs in the area ~~surpasses the total number of jobs for the entire Hub Plan area (275)~~, it is expected that other sites throughout the Hub Plan

area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall ~~decrease~~^{net increase} of approximately ~~1,920~~²⁷⁵ jobs area wide.

K. ALTERNATIVES

The second bullet of the project objectives has been updated in the project description. Updating the Hub Plan objective would result in an edit similar to that on page 5-2 of the Alternatives:

- * The Hub Plan objectives are to create a vibrant mixed-use neighborhood; ~~maintain a strong preference for housing~~^{increase the production of housing, especially affordable housing}; encourage residential towers on selected sites; establish a functional, attractive, and well-integrated system of public streets and open spaces; reconfigure major streets and intersections for safety; and take advantage of opportunities to create public spaces.

On page 5-8, the first sentence of the fourth paragraph has been revised as follows:

- * The total number of new residential units developed under Alternative A would be approximately 5,300 (compared to the potential for approximately ~~8,530~~^{8,100} new units under the Hub Plan).

On page 5-23 in Chapter 5, Alternatives, the second-to-last and third-to-last sentences under the Alternative B description have been revised as follows:

- * As such, development assumptions for this alternative would be the same as those for the Hub Plan and Hub HSD, including the addition in the Hub Plan area of approximately ~~8,530~~^{8,100} residential units, which includes the two individual development projects at 30 Van Ness Avenue and 98 Franklin Street. Alternative B includes upzoning of the 18 sites, rezoning parcels from Neighborhood Commercial Transit (NCT) to Downtown General Commercial (C-3-G) zoning district, and extending the Van Ness and Market ~~Downtown~~-Residential Special Use District, as would occur with the proposed project.

On page 5-23, the second to last sentence of the fourth paragraph has been revised as follows:

- * Alternative C, the Hub Plan Reduced Intensity Alternative, would reduce the buildout assumptions at the 18 sites identified for height and bulk increases detailed in Table 2-1, p. 2-24, with an estimated 7,802 new residential units (compared with approximately ~~8,530~~^{8,100} new residential units under the Hub Plan),

On page 5-25 in Chapter 5, Alternatives, Table 5-2 has been revised as follows:

* **TABLE 5-2. 30 VAN NESS AVENUE COMPARISON**

Category	30 Van Ness Avenue Proposed Project	Alternative D: 30 Van Ness Avenue No Project Alternative	Alternative E: 30 Van Ness Avenue Reduced Intensity Alternative
Residential units	610	0	0
Retail	21,000	13,840	15,000
Office	350,000	184,100	350,000
Privately owned public open space	3,300	0	3,300
Commonly accessible open space – residential	29,280	0	0
Podium height	150 feet	75 feet	150 feet
Building height	520 feet		
Stories	475	5	11
Basement levels	2	0	1
Employees	1,520	710	1,503
Parking spaces	148243	42	89
Loading Spaces	6	0	5
Bicycle spaces	310 class 1, 48 class 2	0	72 class 1, 15 class 2

On page 5-26 in Chapter 5, Alternatives, the second sentence has been revised as follows:

* This alternative would include one below-grade parking level with 89 parking spaces, two car-share spaces, 87 bicycle parking spaces, and five loading spaces and require 1,503 permanent employees, while the proposed project would include two below-grade parking levels with ~~148243~~ parking spaces, five car-share spaces, 358 bicycle parking spaces, and six loading spaces and require 1,520 permanent employees.

Updating the Hub Plan objective would result in an edit similar to the first sentence of the first paragraph on page 5-64 of the Alternatives:

* Alternative A would not prioritize and facilitate the creation of housing in the same way that the Hub Plan and Hub HSD would (by defining neighborhood priorities and guiding growth and development in the area) and would not provide incentives to “maintain a strong preference for housing as a desired use increase the production of housing, especially affordable housing.”

Updating the Hub Plan objective would result in an edit similar to that in the first column of Table 5-6, Summary of Ability of Alternatives to Meet Project Objective, on page 5-65 of the Alternatives:

- * ~~Maintain a strong preference for housing as a desired use.~~ Increase the production of housing, especially affordable housing.

The text in Table 5-6 of the Alternatives that describes the objectives of the 98 Franklin Street project was inconsistent with one of the objectives stated in the project description. The project description contained the correct text. Text in the table is revised to be consistent with the project description and modified to state:

- * Construct a substantial number of dwelling units, ~~with 18 percent to be affordable for lower income residents,~~ to contribute to implementation of the City's general plan housing element goals and the Association of Bay Area Governments' Regional Housing Needs Allocation for the city

Updating the Hub Plan objective would result in an edit similar to that on page 5-71 of the Alternatives:

- * Alternative C would meet most of the project objectives of the Hub Plan, but it would reduce the development program, resulting in less overall residential growth in the Hub Plan area. As such, this alternative would be less successful than the Hub Plan at maximizing housing in an area of the city that needs it, creating "a vibrant mixed-use neighborhood," and ~~increasing~~ maintaining "affordable housing ~~a strong preference for housing as a desired use.~~" In addition, Alternative C would not prioritize and facilitate the creation of housing in the same way and to the same degree that the Hub Plan would. Therefore, Alternative C would be partially consistent with the project objectives of the Hub Plan.

L. INITIAL STUDY SECTIONS

AESTHETICS AND VEHICULAR PARKING ANALYSIS

On page E.2, the third sentence in the second paragraph has been revised as follows:

- * This parking-space-per-dwelling-unit ratio would be higher than the space-per-dwelling-unit control for the the Van Ness and Market ~~Downtown~~ Residential Special Use District (0.25) and slightly higher than the existing neighborhood residential parking rate of 0.56 space per unit.

LAND USE AND PLANNING

On page E.1-3, the first sentence of the last paragraph has been revised as follows:

- * The majority of C-3-G zoning district sites in the Hub Plan area are also within the Van Ness and Market ~~Downtown~~-Residential Special Use District (SUD).

On page E.1-4, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassification of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

AESTHETICS

On page E.2-10, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

POPULATION AND HOUSING

Footnote 11 on page E.3-4 of Section 3.E, Wind, has been updated to clarify that four parcels would be zoned P:

- * Although some portions of the Hub Plan area are currently not located in the C-3 District, the Hub Plan would change all parcels to C-3, with the exception of some Public (P) parcels that would remain and the rezone of four parcels owned by government agencies from NCT-3 to P zoning designations.

On page E.3-7, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

On page E.3-9, the last sentence of the second paragraph has been revised as follows:

- * As shown in Table E.3-4, the Hub Plan could result in up to ~~16,540~~15,700 new city residents.

On page E.3-9, Table E.3-4, Projected Residents and Employees within the Hub Plan Area and the Individual Project Sites, the row with information for the Hub Plan has been updated as follows:

* **TABLE E.3-4. PROJECTED RESIDENTS AND EMPLOYEES WITHIN THE HUB PLAN AREA AND THE INDIVIDUAL PROJECT SITES**

Land Use	Units/Gross Square Footage (sf)	Generation Rate	Estimated Residents/Employees
Residents			
The Hub Plan	8,530 <u>8,100</u> units ^a	1.3 persons/studio 1.7 persons/one bedroom 2.5 persons/two bedrooms ^{+b}	16,540 <u>15,700</u> residents ^c

On page E.3-8, Table E.3-4, Projected Residents and Employees within the Hub Plan Area and the Individual Project Sites, the row with information for the Hub Plan has been updated as follows:

Employees			
The Hub Plan – Commercial	N/A	N/A	-1,902 <u>-1,275</u> employees ^e

Footnote “e” in Table E.3-4. Projected Residents and Employees within the Hub Plan Area and the Individual Project Sites, on page E.3-8 has been revised as follows:

- * ^e Jobs were estimated from anticipated gross square footage of development by use type. It is noted that the transportation model run that was completed before 170 Otis Street was added as one of the Hub Plan sites; however, there is a loss of approximately 1,920 ~~approximately 125~~ employees that could be added on this site as a result ~~from~~ of the proposed height increases ~~sup zoning~~ under the Hub Plan are accounted for in the ~~275~~ additional employees listed in this table under the Hub Plan.

On page E.3-12, the following text has been revised as follows:

- * As shown in **Table E.3-5**, the Hub Plan could result in up to approximately ~~16,540~~15,700 new residents and ~~275 new~~ a decrease of approximately 1,920 jobs in the Hub Plan area compared with existing conditions. It is noted that although the number of jobs anticipated as a result of the 30 Van Ness Avenue and 98 Franklin Street projects (1,534) surpasses the total number of jobs listed in **Table E.3-4**, p. E.3-9, for the entire Hub Plan area (~~-1,920~~-275), it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be

replaced with residential uses, resulting in an overall net ~~decrease~~increase of approximately ~~1,920~~275 jobs area wide.

On page E.3-12, Table E.3-5 has been revised as follows:

* **TABLE E.3-5. EXISTING AND FORECAST HOUSING AND POPULATION IN THE HUB PLAN AREA**

	Existing	2040 No Project (Growth Allowed under Current Zoning, <u>with Buffer</u>) (Total)	The Hub Plan, <u>with Buffer</u> (Net Change)	2040 with the Hub Plan (Cumulative Condition) (Total)
Households (units)	3,500	9,300 9,538	8,400 <u>530</u>	22,500 21,307
Population	8,100	19,300 19,841	15,700 <u>16,540</u>	47,500 41,447
Jobs	13,200 13,600	10,400 <u>731</u>	275 -1,920	11,600 <u>5,092</u>

Source: ~~San Francisco Planning Department, Hub Plan Development Estimates and Methodology, June 13, 2019.~~ San Francisco Planning Department, Market Octavia Plan Amendment (Hub Plan) Updated Population Estimates and Methodology, January 2020.

On page E.3-12, the last paragraph has been revised as follows:

* In total, the two individual development projects could employ up to 1,534 workers (a net increase of 822 workers compared to existing conditions), which is more than the total new jobs under the Hub Plan (~~-1,920~~275 jobs). However, it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net ~~decrease~~increase of approximately ~~1,920~~275 jobs area wide.

Footnote 52 on page E.3-13 has been revised as follows:

* To calculate the amount of growth in the city and Bay Area, the total number of new residents added under the Hub Plan (~~16,540~~15,700) is divided by the anticipated growth in the city (195,300) and Bay Area (1,512,300). City growth: (~~16,540~~15,700 new residents/195,300) x 100 = 8%; Bay Area growth: (~~16,540~~15,700 new residents/1,512,300) x 100 = 1%.

The following text on page E.3-14 has been revised as follows:

* As shown in **Table E.3-4**, p. E.3-9, the Hub Plan could result in a reduction of 1,920~~275 new~~ jobs in the Hub Plan area compared with existing conditions.

On page E.3-14, the third sentence under the Housing Demand subsection has been revised as follows:

* Moreover, the proposed zoning district reclassifications, as well as the proposed expansion of the Van Ness and Market ~~Downtown~~-Residential SUD, are intended to incentivize and encourage residential development in the Hub Plan area.

On page E.3-15, the second sentence has been revised as follows:

- * The Hub Plan's key strategies for enhancing development potential include increased densities, a wide and flexible range of uses, and increased height limits. With these changes to height and bulk limits, as well as development densities, the department estimates that ~~8,5308,100~~ additional housing units could be developed in Hub Plan area by 2040.

On page E.3-16, the first sentence of the second paragraph has been revised as follows:

- * As discussed above, the Hub Plan, including the two individual development projects, would allow for the construction of approximately ~~8,5308,100~~ housing units (expected to house approximately ~~15,700~~16,540 residents).

Footnote "a" in Table E.3-6 on page E.3-16 has been revised as follows:

- * ^a. The following calculations were completed: Jobs: $759,500 - 1,920 + 275 = 757,580$ ~~759,775~~; Housing: $447,350 + 8,530$ ~~100~~ = $455,880$ ~~450~~; Jobs/Housing Ratio: $757,580$ ~~759,775~~/ $455,880$ ~~450~~ = 1.67

On page E.3-17, the second sentence of the second paragraph has been revised as follows:

- * However, from the perspective of the city's housing stock, the potential loss of housing units as a result of development under the Hub Plan would be offset by the potential production of up to approximately ~~8,5308,100~~ net new housing units within the Hub Plan area, in addition to residential development elsewhere in San Francisco that has been occurring or is expected to occur in the future.

The text describing the proposed 30 Van Ness Avenue Project has been updated, based on the sponsor's (30 Van Ness Development, LLC) updates to the design. The total height of the building has not changed, but the number of stories has changed from 45 to 47. In addition, the number of floors of office space has changed from 11 to 10 and the number of residential floors has been updated for the current design. On page E.3-17, the first sentence of the fifth paragraph is edited as follows:

- * The proposed project at 30 Van Ness Avenue includes retention of portions of the existing building and construction of an approximately ~~47~~5-story building with ground-floor commercial space, ~~10~~1 floors of office space, and ~~37~~3 floors of residential space.

GREENHOUSE GAS EMISSIONS

On page E.9-9, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts

(largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

RECREATION

On page E.12-5, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

The second sentence of the first paragraph on page E.12-6 has been revised as follows:

- * In total, the Hub Plan, including the two individual development projects, would result in approximately ~~16,540~~15,700 new residents and a reduction of approximately 1,920~~275~~ new jobs compared to existing conditions.

UTILITIES AND SERVICE SYSTEMS

On page E.13-9, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

On page E.13-27, the second sentence of the second paragraph has been revised as follows:

- * Development in the Hub Plan area, including the two individual development projects, could result in up to ~~8,530~~8,100 additional residential units in the vicinity.

On page E.13-31, the first sentence of the second paragraph has been revised as follows:

- * Development incentivized under the Hub Plan as well as the two individual development projects would generate approximately ~~11,169~~10,600 tons per year of solid waste that would necessitate disposal in a landfill.¹⁴⁵

Footnote 145 on page E.13-31 has been revised as follows:

- * Calculation: 3.7 pounds/resident/day × ~~16,540~~15,700 residents × 365 days/year = ~~22,337,270~~21,202,850 pounds/year; converted into tons = ~~11,169~~10,600 tons/year.

On page E.13-33, the first sentence has been revised as follows:

- * The Hub Plan and two individual development projects would accommodate new development in the Hub Plan area, which, in turn, would result in up to 8,530,100 additional residential units.

PUBLIC SERVICES

On page E.14-4 in Public Services, the schools information has been revised as follows:

* **SAN FRANCISCO UNIFIED SCHOOL DISTRICT**

The San Francisco Unified School District (SFUSD) operates San Francisco's public schools. During the 2016–2017 academic year, the SFUSD managed 117 schools (75 elementary schools, 16 middle schools, 18 high schools, six alternative schools, and two continuation schools),^{169a} with a ~~total enrollment of~~ capacity for approximately 63,400 students~~60,133.~~^{169b} Between 2000 and 2010, overall enrollment in the SFUSD experienced a large decline, but the district has experienced a gradual increase in enrollment during the past decade.¹⁷⁶ Total enrollment in the district increased to about 52,763 in the 2017–2018 school year.^{169c,d} In addition, for the 2018–2019 school year, approximately 4,502 students enrolled in public charter schools that are operated by other organizations but located in school district facilities.^{169e} Thus, even with increasing enrollment, SFUSD currently has more classrooms district wide than needed.^{170a} However, the net effect of housing development across San Francisco is expected to increase public school enrollment. There are anticipated to be 5,000 additional public school students by 2030 with an estimated increase of up to 5,000 more public school students by 2040.^{170b} Therefore, eventually enrollment is likely to exceed the capacity of currently used SFUSD facilities.^{170c}

SFUSD works with the department and other city agencies to develop public school student enrollment projections and inform its facility planning. As SFUSD teaching and learning evolves beyond 20th-century teaching methods and utilization, historical capacities will need updating to reflect new standards. SFUSD is currently assessing how best to incorporate the education field's best practices in terms of space utilization for 21st-century education. This assessment will inform how best to accommodate the anticipated future school population and whether new or different types of facilities are needed. Should additional capacity be required to meet the updated educational space standards and projected public school student population, SFUSD is considering several options. A new school anticipated to have capacity for 500 students is under development in Mission Bay, located at the corner of Owens Street and Nelson Rising Lane. In addition, in the near term, there is an existing school site on Treasure Island that will be leased by SFUSD.^{170d} There is also a project planned for the replacement,

renovation, and expansion of the district’s 135 Van Ness property for the Arts Center Campus. SFUSD could also renovate and reconfigure other existing school facilities and assets owned by SFUSD but not currently in school use, as necessary. Through coordination with regional planning agencies and the department, SFUSD is managing its facilities to address anticipated population growth and incorporate best practices in terms of space utilization for education facilities within the city.

There are both attendance area and citywide schools in the SFUSD.¹⁷¹ Starting at the elementary school level, students can choose any school and list their preferred choices on the application. A resident living within the boundary of his or her attendance area school is given preference; tie-breakers are used to help place students in a requested school when the number of requests for a school exceeds the number of spaces available.

~~The SFUSD currently uses a diversity index lottery system to assign students to schools, which is based on several factors, including parental choice, school capacity, and special program needs.¹⁷⁰ As shown in Table E.14-2, enrollment in SFUSD schools has been steadily increasing since 2009-2010. Projections from the 2009 SFUSD Capital Plan (FY 2010-2019) indicate that elementary enrollment will continue to grow because of the large birth cohorts of the early 2000s. High school enrollment will experience a continuous decline over the next 5 years, reflecting the declining birth trend of the 1990s.¹⁷¹~~

TABLE E.14-2. ENROLLMENT IN SFUSD SCHOOLS

	Years							
	2009– 2010	2010– 2011	2011– 2012	2012– 2013	2013– 2014	2014– 2015	2015– 2016	2016– 2017
Total Enrollment	55,140	55,571	56,222	56,970	57,620	58,414	58,865	60,133

Source: California Department of Education, Educational Demographics Office, *Fiscal, Demographic, and Performance Data on California’s K–12 Schools*, 2018, <https://www.ed-data.org/district/San-Francisco/San-Francisco-Unified>, accessed: February 22, 2018.

Footnotes:

169a California Department of Education, Educational Demographics Office, *Fiscal, Demographic, and Performance Data on California’s K–12 Schools*, 2018, <https://www.ed-data.org/district/San-Francisco/San-Francisco-Unified>, accessed: February 22, 2018.

169b San Francisco Unified School District, San Francisco Bay Area Planning and Urban Research (SPUR) Forum Presentation, *Growing Population, Growing Schools*, August 31, 2016. https://www.spur.org/sites/default/files/events_pdfs/SPUR%20Forum_August%2031%202016.pptx_pdf, accessed October 5, 2018.

169c San Francisco Unified School District, Facts at a Glance, 2018, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/sfusd-facts-at-a-glance.pdf>, accessed October 23, 2019.

169d Enrollment summaries do not include charter schools.

- 169e Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, January 2020, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed: February 2020
- 170a San Francisco Unified School District, *History of the Student Assignment in SFUSD*, 2011, <http://www.sfusd.edu/zh/assets/sfusd-staff/enroll/files/SFUSD-Presentation-Handouts-1-2016-09-21.pdf>, accessed: February 22, 2018. San Francisco Unified School District, San Francisco Bay Area Planning and Urban Research (SPUR) Forum Presentation, *Growing Population, Growing Schools*, August 31, 2016, https://www.spur.org/sites/default/files/events_pdfs/SPUR%20Forum_August%2031%202016.pptx.pdf, accessed October 5, 2018.
- 170b The enrollment forecast prepared for SFUSD notes that there is greater certainty regarding the estimate of 5,000 more students by 2030 than the increase between 2030 and 2040 of an additional 5,000, due to the lack of details in the data regarding the type of anticipated housing during this period.
- 170c Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, February 16, 2018, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed: July 10, 2019.
- 170d Renovation and expansion of that school site was studied in the Treasure Island/Yerba Buena Island Redevelopment Project Draft EIR. For more information, please see *Treasure Island/Yerba Buena Island Redevelopment Project Draft EIR*, Planning Case No. 2007.0903E.
- 171 San Francisco Unified School District, *Capital Plan, FY 2010-2019*, September 2009, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>, accessed: February 22, 2018. Attendance areas are geographic boundaries defining the service area of most elementary schools. Citywide schools include K-5 language immersion schools, K-8 schools, middle and high schools, and do not serve a particular geographic area.
- 176 Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, January 2020, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed: February 2020. San Francisco Unified School District, *Capital Plan FY 2010-2019*, September 2009, pp. 19-20, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/capital-plan-final-2010-2019.pdf>, accessed: November 18, 2018.

On page E.14-5, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

On page E.14-5, in the Approach to Analysis subsection, the following paragraph has been added after the first paragraph of the subsection:

- * As identified and described in Section E.3, Population and Housing, above, the subsequent development projects in the Hub Plan area that could be approved pursuant to the Hub Plan would accommodate the population growth already identified for San Francisco through ongoing regional planning and projected to occur within city boundaries. Further, the Hub Plan would not stimulate population or job growth within

the city that is not already projected to occur in regional growth forecasts and regional air quality planning efforts.

The text on page E.14-6, the fifth paragraph has been revised as follows:

- * As discussed in the EIR project description, the Hub Plan and the two individual development projects would incentivize new development that could generate approximately ~~16,540~~^{15,700} residents and a reduction of approximately 1,920~~275~~ new jobs over existing conditions.

The text in the last paragraph on page E.14-6 has been revised as follows:

- * Operations under the Hub Plan, including the two individual development projects, could result in new development that would result in approximately ~~16,540~~^{15,700} new residents in the city.

On page E.14-9 of Public Services, impact statement Impact PS-2 has been revised as follows:

- * **Impact PS-2: The Hub Plan, as well as individual development projects at 30 Van Ness Avenue and 98 Franklin Street, would not directly or indirectly generate school students and increase enrollment in public schools such that new or physically altered facilities would be required that would result in significant impacts. (Less than Significant)**

On page E.14-9 of Public Services, the first sentence after impact statement Impact PS-2 has been revised as follows:

- * The Hub Plan, including the two individual development projects, would incentivize new residential development within the plan area, which could generate students who would attend San Francisco public schools.

On page E.14-9 of Public Services, the text of the third paragraph has been revised as follows:

- * To analyze project demand ~~on~~ for public schools, estimates of the number of public school students generated by new development incentivized by the Hub Plan were made using public school student ~~generation~~ yield rates for market-rate and below-market-rate housing units.¹⁷⁵ **Table E.14-32** identifies the number of school-aged children ~~who would be~~ generated by new development incentivized by the Hub Plan as a whole, including the two individual development projects, who would be anticipated to attend public schools and the two individual projects individually. Note, between 2013 and 2017, the city's estimated K-12 private school enrollment rate was approximately 25 percent, although this figure is most likely overstated because some private school students are not San Francisco residents. This analysis presents the anticipated number of students who would attend public schools in San Francisco and is based on projected enrollment analysis conducted for SFUSD.

On page E.14-9 of Public Services, Table E.14-3 has been revised as follows:

*

TABLE E.14-32. STUDENTS GENERATED BY THE HUB PLAN AND THE TWO INDIVIDUAL DEVELOPMENT PROJECTS

Type of Unit	Total Units	Student Generation Rate	Estimated Public School Student Growth Due to Project
Hub Plan – Onsite Units, including 30 Van Ness Avenue and 98 Franklin Street			
Market-Rate Units	6,3756,075	0.10	638608
Below-Market-Rate ^a Units	2,1252,025	0.25	532506
		<i>Total</i>	<u>1,1701,114</u>
30 Van Ness Avenue – Onsite Units			
Market-Rate Units	457	0.10	46
Below-Market-Rate Units	153	0.25	38
98 Franklin Street – Onsite Units			
Market-Rate Units	283	0.10	28
Below-Market-Rate Units	62	0.25	15

Source: Lapkoff & Gobalet Demographics Research, Inc., *Demographic Analyses and Enrollment Forecasts, San Francisco Unified School District*, February 16, 2018, <http://www.sfusd.edu/en/assets/sfusd-staff/about-SFUSD/files/demographic-analyses-enrollment-forecast.pdf>, accessed February 26, 2018.

^a. The number of below-market-rate units is based on the percentage of below-market-rate units for the 30 Van Ness Avenue Project (25 percent), which is the highest of the two development projects.

On pages E.14-10 through E.14-11 in Public Services, the schools information has been revised as follows:

*

The resulting increase in the number of public school students attributable to development under the 30 Van Ness Avenue Project would be 84 students and 43 students under the 98 Franklin Street Project. Overall, the Hub Plan, including for the two development projects, would add approximately 1,1701,114 public school students to the Hub Plan area. It is conservatively assumed that students would be new to the district ~~and would attend public schools~~, though it is likely that a portion of the students would already be enrolled within the SFUSD ~~or would attend a private school~~. Under the ~~diversity index lottery~~ current school assignment system, a student generated by subsequent development projects incentivized by the Hub Plan as well as the two individual development projects, may attend a SFUSD school that is not his or her nearest school as long as capacity exists. Thus, it is not assumed that all students generated by subsequent development projects incentivized by the Hub Plan would attend the nearest school. The potential 1,1701,114-additional K–12 public school students that could result from subsequent development projects incentivized by the Hub Plan, as well as the two individual development projects, represent a direct incremental increase in the demand

for school services ~~increase of approximately 1.9 percent in district enrollment compared with the 2016–2017 academic year.~~

As discussed above, the SFUSD ~~currently would have adequate~~ capacity within its existing facilities to accommodate new students ~~generated by subsequent development projects incentivized by the Hub Plan as well as the two individual development projects.~~ Between 2000 and 2010, overall enrollment in the SFUSD experienced a large decline, ~~but the district has experienced a gradual increase in enrollment the past decade.~~¹⁷⁶ ~~Today, several schools within the SFUSD are still underutilized, with more classrooms district-wide than needed.~~¹⁷⁷

~~In addition, a~~ An increase in the public school student population as a result of development under the Hub Plan and the individual development projects would occur gradually over the anticipated 20-year buildout under the plan, and a portion of the new students would be expected to attend private schools. Furthermore, the Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50, restricts the ability of local agencies to deny land use approvals on the basis that public school facilities are inadequate. Senate Bill 50 authorizes school districts to levy developer fees to address local school facility needs resulting from new development ~~finance the construction or reconstruction of school facilities.~~ These fees are intended to address increased educational demands on the school district resulting from new development. Public school districts can, however, impose higher fees than those established by the State Allocation Board, provided they meet the conditions outlined in the act. Private schools are not eligible for fees collected, pursuant to Senate Bill 50.

Local jurisdictions are precluded under state law (Senate Bill 50) from imposing enrollment-related mitigation beyond the school impact fees. The SFUSD collects these fees, which are used in conjunction with other school district funds, to support efforts to complete SFUSD capital improvement projects within the city. The proposed project would be subject to the School Impact Fees. ~~The collection of the fees, therefore, fully mitigates any potential effects on schools associated with additional development that could result from implementation of the Hub Plan, including the two individual development projects. Although s~~

Subsequent development projects incentivized by the Hub Plan, as well as the two individual development projects, could increase the resident population and the potential student enrollment in the SFUSD. ~~the payment of fees mandated under Senate Bill 50 and prescribed by the statute, and the fact that~~ However, there is existing capacity in the SFUSD system, ~~would minimize potential impacts resulting from additional students. In addition, for the reasons described above, the SFUSD would have adequate capacity within its existing facilities to accommodate new students generated by subsequent development projects incentivized by the Hub Plan as well as the two~~

~~individual development projects. Although it is highly unlikely that new schools would be required as a result of implementation of the Hub Plan or the two individual development projects, s~~ Should a future school be required to accommodate population increases, it is likely that new school development would be sited on an in-fill site in an area of the city that is well served by transit. In addition, any potentially significant effects from the construction of such facilities would be similar to those anticipated with development under the Hub Plan, such as noise, archaeological, air quality impacts (e.g., emissions of dust and other pollutants, including diesel exhaust); temporary street closures; or other traffic obstructions. Therefore, construction of a new school facility would not result in new significant impacts that were not already analyzed and disclosed in the initial study or EIR. Moreover, the EIR identifies a number of significant impacts, including those that cannot be mitigated to a less than significant level, from growth in the Hub Plan area. Construction of new school facilities, should it be warranted, could contribute incrementally to such Hub Plan level impacts. Should such facilities be constructed, they would be subject to applicable mitigation measures identified in the EIR, just as any other physical development in the Hub Plan area would be. Therefore, construction of new school facilities would not result in new significant impacts that were not already analyzed and disclosed in the initial study and EIR. The impact would be *less than significant*.

On page E.14-13 in Public Services, beginning with the second paragraph, the schools information has been revised as follows:

- * The SFUSD has experienced steady increases in enrollment since 2009–2010. Pursuant to Senate Bill 50, individual project applicants would be required to pay school impact fees, which were established to offset potential impacts from new development on school facilities. Under the SFUSD's ~~diversity index lottery~~ current student assignment system, new students from the Hub Plan area ~~may~~ would attend schools elsewhere in the city because no school currently exists within the Hub Plan area. Considering the current underutilized nature of existing educational facilities citywide, including the Hub Plan area, as well as the fact that other development projects would also be required to pay school impact fees,
- Given the anticipated increase in student enrollment over the next several decades, combined with potential changes to educational space utilization best practices being considered by SFUSD, development incentivized by the Hub Plan, including the two individual development projects, in combination with past, present, and reasonably foreseeable future projects, ~~would not~~ could result in the need for new or physically altered school facilities. The SFUSD has identified options for accommodating anticipated future public student population, as described below.

A future SFUSD school is currently under development in Mission Bay with capacity for up to 500 students. In addition, SFUSD has near-term plans to lease an existing school site on Treasure Island. The Treasure Island school site has existing capacity for a few hundred students. Renovation and expansion of that school site were studied in the Treasure Island/Yerba Buena Island Redevelopment Project EIR.^{181b} There is also a project planned for placement, renovation, and expansion of the district's 135 Van Ness Avenue property for use by the district's Arts Center Campus. The project would relocate an existing school to this location and would not increase capacity of the system. Should additional capacity beyond these facilities be required by SFUSD, and given the limited opportunities to acquire new sites, SFUSD could rehabilitate or expand facilities at existing SFUSD sites. There is uncertainty regarding the degree to which existing facilities would need to be altered or new facilities would be constructed and therefore, there is uncertainty regarding the specific location of any new or altered facilities.

Cumulative impacts could potentially result if the demand created by the proposed project, when combined with past present, or reasonably foreseeable future projects, results in physical environmental changes from the expansion or construction of additional school facilities that cause significant environmental impacts. SFUSD will likely need to increase its classroom capacity in order to accommodate public school students anticipated by 2040 and incorporate best practices for educational space utilization. However, it is too speculative to conduct a meaningful environmental review or identify significant cumulative impacts at this time without more information regarding what action or actions the SFUSD would take to accommodate the additional students, whether SFUSD would choose to accommodate the additional students in a manner that would result in physical changes to the environment, or exactly where those actions would occur. In addition, construction impacts such as noise, air quality, transportation, and hazards would be localized to each specific school site, with those sites dispersed throughout the city. For these reasons, construction impacts would not likely have the potential to combine in a way that would result in a significant cumulative environmental impact. Additionally, any new facilities proposed by SFUSD would undergo appropriate environmental review for site-specific physical environmental impacts.

The proposed plan would not increase total public student projections beyond what was already anticipated for the city in future years; rather, the plan would, over time, concentrate more students in transit- and amenity-rich areas that are targeted for future housing production. Moreover, the numerous sources of uncertainty discussed above create challenges for accurately determining future student enrollment projections, particularly beyond 2030, as well as the location and capacity of facilities, if any, that may be constructed, reconfigured, or expanded. As a result, any determination of a significant cumulative effect related to provision of public school facilities would be

speculative. Therefore, the plan, including the two individual projects at 30 Van Ness Avenue and 98 Franklin Street, is not expected to result in a significant contribution to a cumulative impact.

On page E.14-13 in Public Services, footnote 181b has been added:

- * ^{181b} *Treasure Island/Yerba Buena Island Redevelopment Project Draft EIR, Planning Case No. 2007.0903E*

BIOLOGICAL RESOURCES

On page E.15-2, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

GEOLOGY AND SOILS

On page E.16-6, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

HYDROLOGY AND WATER QUALITY

On page E.17-4, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

HAZARDS AND HAZARDOUS MATERIALS

On page E.18-6, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

ENERGY

On page E.20-2, the second sentence under the Approach to the Analysis subsection has been revised as follows:

- * The Hub Plan is a regulatory program and would result in changes to current zoning controls, including building heights (on 18 sites), reclassifications of zoning districts (largely from NCT-3 to C-3-G in the southern portion of the Hub Plan area), and expansion of the Van Ness and Market ~~Downtown~~-Residential SUD to encompass the southern portion of the Hub Plan area.

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ATTACHMENT A: DRAFT EIR COMMENT LETTERS

From: [Chan, Andrew@DOT](mailto:Chan.Andrew@DOT)
To: CPC.HubPlanEIR
Cc: State.Clearinghouse@opr.ca.gov
Subject: Caltrans Comment - The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District - Draft EIR - SCH 2018052060
Date: Monday, September 09, 2019 1:12:50 PM

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hello Elizabeth White,

Please see Caltrans' comment below regarding The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District - Draft Environmental Impact Report – SCH 2018052060

Encroachment Permit

The DEIR indicates that a portion of South Van Ness Avenue (US 101) is proposed for improvements within and outside existing state right of way. In addition, several city surface streets, a portion of which are within existing state right-of-way (ROW) under US 101, are also proposed for improvements.

Please be advised that any work or traffic control that encroaches onto the State ROW requires a Caltrans-issued encroachment permit. To obtain an encroachment permit, a completed encroachment permit application, environmental documentation, six (6) sets of plans clearly indicating the State ROW, and six (6) copies of signed, dated and stamped (include stamp expiration date) traffic control plans must be submitted to: Office of Encroachment Permits, California DOT, District 4, P.O. Box 23660, Oakland, CA 94623-0660. To download the permit application and obtain more information, visit <https://dot.ca.gov/programs/traffic-operations/ep/applications>.

Thank you,

Andrew Chan

Associate Transportation Planner

Local Development - Intergovernmental Review

Caltrans District 4

Office: 510-622-5433

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AUG 21 2019

STATE CLEARINGHOUSE

From: [Correa, Cruz@CHP](mailto:Correa_Cruz@CHP)
To: [Reano, Kara@CHP](mailto:Reano_Kara@CHP); [OPR State Clearinghouse](#)
Cc: [Ramos, Steve@CHP](mailto:Ramos_Steve@CHP); [Bosco, Lamonte@CHP](mailto:Bosco_Lamonte@CHP)
Subject: EIR - 335 - SCH #2018052060 - No Impact
Date: Wednesday, August 21, 2019 3:49:42 PM

I reviewed the Market Octavia Plan Amendment (formerly The Hub), along with the Draft Environmental Impact Report (DEIR), specifically Chapter 3B – Transportation and Circulation, and consulted with Lead Agency Staff Contact, Ms. Elizabeth White.

1

No impact to the San Francisco Area's local operations and or public safety by SCH #2018052060 was identified.

However, due to the boundary of the project and the proximity to United States Highway 101 (US-101), Central Freeway, specifically the exit-ramps at Mission Street and Market Street, and the on-ramps at Market Street and S. Van Ness Avenue, the potential for increased traffic congestion exists.

2

Please contact me with any questions or comments about this review.

--

Cruz Correa
Administrative Sergeant
CHP – San Francisco Area (335)
455 8th Street
San Francisco, CA 94103
(415) 557-1094



SAN FRANCISCO PLANNING DEPARTMENT

August 20, 2019

Ms. Lisa Gibson
Environmental Review Officer
San Francisco Planning Department
1650 Mission Street, 4th Floor
San Francisco, CA 94103

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

Reception:
415.558.6378

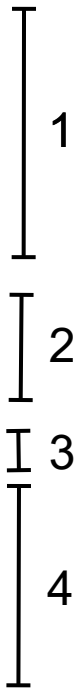
Fax:
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415.558.6377

Dear Ms. Gibson,

On August 7, 2019, the Historic Preservation Commission (HPC) held a public hearing on the Draft Environmental Impact Report (DEIR) for the proposed Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (2015-000940ENV). After discussion, the HPC arrived at the comments below:

- The HPC found the DEIR to be adequate and accurate, and concurred with the analysis presented in the DEIR concerning historic resources.
The HPC agreed that the DEIR analyzed an appropriate range of preservation alternatives to address historic resource impacts.
The HPC expressed a preference for Alternative C, the Hub Plan Reduced Intensity Alternative.
The HPC supported the mitigation measures described in the DEIR.
Commission President Hyland requested information about a community-generated application for a Landmark District at the southeast end of the Plan Area that did not appear on any of the DEIR's Historic Resource maps. [Staff note: The Woodward Street Romeo Flats Reconstruction Historic District is located outside of the Plan Area in this general vicinity and is included in the Planning Department's Landmark Designation Work Program for future consideration as an Article 10 Landmark District. This will be addressed in the Response to Comments.]



A full transcript of the HPC hearing is enclosed with this letter. The HPC appreciates the opportunity to participate in review of this environmental document.

Sincerely,

[Handwritten signature of Aaron Hyland]

Aaron Hyland, President
Historic Preservation Commission



Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Kate Gordon
Director

September 9, 2019

Elizabeth White
San Francisco, City and County of
1650 Mission St#400
San Francisco, CA 94103

Subject: The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing
Sustainability District
SCH#: 2018052060

Dear Elizabeth White:

The State Clearinghouse submitted the above named EIR to selected state agencies for review. The review period closed on 9/6/2019, and the comments from the responding agency (ies) is (are) available on the CEQA database for your retrieval and use. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

Check the CEQA database for submitted comments for use in preparing your final environmental document: <https://ceqanet.opr.ca.gov/2018052060/2> . Should you need more information or clarification of the comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

1



Gavin Newsom
Governor

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit



Kate Gordon
Director

September 9, 2019

Elizabeth White
San Francisco, City and County of
1650 Mission St#400
San Francisco, CA 94103

Subject: The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing
Sustainability District
SCH#: 2018052060

Dear Elizabeth White:

The comment (s) on your EIR was (were) received by the State Clearinghouse after the end of the state review period, which closed on 9/6/2019. **Please check the CEQA database for these comments:** <https://ceqanet.opr.ca.gov/2018052060/2> because they provide information or raise issues that should be addressed in your final environmental document.

The California Environmental Quality Act does not require Lead Agencies to respond to late comments. However, we encourage you to incorporate these additional comments into your final environmental document and to consider them prior to taking final action on the proposed project.

Please contact the State Clearinghouse at (916) 445-0613 if you have any questions concerning the environmental review process. If you have a question regarding the above-named project, please refer to the ten-digit State Clearinghouse number (2018052060) when contacting this office.

Sincerely,

Scott Morgan
Director, State Clearinghouse

cc: Resources Agency

2



September 9th 2019

Elizabeth White
Senior Environmental Planner
SF Planning Department
1650 Mission Street Suit 400
San Francisco CA 94103
elizabeth.white@sfgov.org

Re: DEIR Hub Plan, 30 Van Ness Avenue, 98 Franklin Street, & Hub Housing Sustainability Project

Dear Mrs. White,

Thank you for the opportunity to comment on the Draft EIR for the Hub. Several members of HVNA provided comments at the Planning Commission hearing on August 29th. These are HVNA Transportation and Planning Committee’s written comments regarding the adequacy of the EIR. We also provide mitigations that strengthen the Hub plan and reduce harmful impacts.

1

Transportation and Circulation (Section 3.B)

The baseline existing conditions on traffic reported in the DEIR (p.3.B.8) are worse than this document reveals, and this means there is an incomplete picture of the chronic congestion that starts in the am peak, peaks multiple times during the day, and lasts much longer than the pm peak defined in the DEIR.

2

The Planning Department 2019 guidelines for transportation impacts acknowledge that different periods might need to be studied, but this DEIR studies only the PM peak.

For example the DEIR does not acknowledge the westbound congestion on Haight and Page Streets at the Octavia Boulevard. This traffic is coming from the direction of the HUB plan area and 98 Franklin, and is congested morning, evening, and weekends. It has a significant impact on pedestrians and cyclists, as well as transit.

Acknowledging this traffic is important because it can help determine mitigations such as restricting private car access on these streets, which were not intended to carry these large volumes of freeway-bound traffic.

2
cont'd

The report also undercounts pedestrian and cycling volumes because it misses the AM peak (3.B-15 – 19 & 3.B-22). The AM peak volumes of cycling are higher and especially concentrated, whereas the PM peak is more spread-out and dispersed.

3

Transit Delay: Why are the Haight Street buses (6 & 8) omitted from the study? (p. 3.B-71). These are important buses that carry thousands of passengers through the Hub daily.

4

Vehicle Miles Traveled

The DEIR concludes (p. 3.B-10) the Hub “**would not cause substantial additional VMT**” or induce automobile travel. This conclusion is based on using a threshold of significance of 14.5 miles/day to analyze per capita daily vehicle miles travel (VMT).

5

Consider that a round trip car ride from 1 South Van Ness to Cow Palace, on the far outer edge of San Francisco, is 13 miles. A driver could commute that far each day and not be considered in this study. The Chase Arena in Mission Bay is 5 miles round trip. The De Young Museum in Golden Gate Park is 6-miles round. Someone could drive round trip to these locations twice and not be included in this study. Tens of thousands of short round trip driving trips such as these examples are incredibly significant and must be mitigated, but the threshold does not capture them.

5

Based on Table 3.B-8, the DEIR shows significant increased person trips by car (about 6,500 during PM peak and almost 30,000 daily) created by the project. It assumes most of those trips would be within the city. For per capita VMT, many of these trips would likely add up to under a per capita of 14.5 miles. The DEIR projects up to 30 percent more traffic volume on some streets (3.B-50) – How much of this congestion is from car trips under per capita 14.5? The DEIR also acknowledges significant particulate air pollution from traffic and suggests mitigation by reducing vehicle trips – yet is vague on how (suggested mitigations are offered below). None of this is captured in mitigation discussion because the VMT threshold is too high (14.5 miles per day).

6

The analysis also leaves out TNC VMT. There are many short TNC trips and the DEIR does not account for TNC deadheading or the distances TNCs travel from outside of the city.

7

The tolerance for additional VMT in the Hub is zero. Therefore the proper threshold of significance for this analysis should reflect 1 VMT per capita. (3-B). The city can decide how to analyze VMT impacts and the selection of a high, suburban standard does not fit in the dense urban core. By using the Bay Area per capita VMT, the department misses an opportunity for stronger mitigations of traffic and fails to understand the impact of short car trips and TNC trips – which is significant and harmful for cycling, walking, and transit, as well as Pm 2.5 particulate pollution.

8

HVNA recommends specific mitigations for traffic impacts:

- 1) Rapid deployment of the proposal to restrict private automobiles on Market Street between 11th and 12th Street, and extending the restrictions west to Gough Street. Do not wait years to implement this. Do it now as preemptive mitigation for the Hub.
- 2) Conversion of 12th Street between Market and Mission/Van Ness into a car-free street
- 3) Deployment of traffic control personnel at chronically blocked pedestrian crossings such as Franklin/Page/Market to ensure pedestrians can safely cross streets.
- 4) Restrictions on private auto access at 98 Franklin to avoid traffic caused by students being dropped off or picked up by car.
- 5) Metering (using traffic signals) of private car and truck traffic through this area to avoid congestion and hazardous impacts on cyclists, pedestrians, and transit passengers

9

Commercial and passenger loading (TR-8)

E-commerce and TNC loading impacts are acknowledged to be significant, and city reports have shown TNCs are causing major congestion and traffic safety hazards. Yet in transport impact TR-8 (pp. 3.B-84-85) the DEIR declares that “**there is no feasible mitigation to reduce this impact.**” This is not true and some ideas for mitigation are provided below.

HVNA recommends specific mitigations for loading impacts:

- 1) Geo fencing TNCs and e-commerce delivery vehicles to ensure that the dense residential district is not swarmed by thousands of additional vehicles every day.
- 2) Provision of a ‘break-bulk’ transfer staging station under the Central Freeway to shift deliveries from large, bulky vans and trucks to a fleet of cargo bicycles or small push carts.
- 3) Provision of curbside taxi stands and loading areas on the perimeter of the residential district, with one to the south of the district (perhaps on South Van Ness) and one to the north of the district on Franklin and Oak Streets.

10

Construction Management (Impact TR-1) (p. 3.B-54)

The construction management plan should dovetail with the Better Market Street Plan to restrict cars on Market between 11th and 12th Streets (and extend west to Gough).

11

HVNA's Transportation & Planning Committee respectfully asks that these mitigations be included in the Final EIR in order to address impacts of private car traffic, e-commerce delivery, TNCs. 11
| cont'd

Sincerely,

Jason Henderson
Chair, Transportation & Planning Committee
Hayes Valley Neighborhood Association
300 Buchanan Street, #503
San Francisco, CA
94102
(415)-255-8136
Jhenders@sonic.net



☎ 415-255-7693 ✉ info@somcan.org 🌐 somcan.org 🏠 1110 Howard Street SF, CA 94103

September 6, 2019

Elizabeth White
 Environmental Planning Division, Planning Department
 1650 Mission Street
 Suite 400
 San Francisco, CA 94103
 and via e-mail CPC.HubPlanEIR@sfgov.org

Re: Planning Department Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV
 State Clearinghouse No. 2018052060

Dear Ms. White:

We respectfully submit this comment letter on The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District Draft Environmental Impact Report, which encompasses the eastern portion of the existing Market and Octavia Area Plan. The Hub Plan amendment to the existing area plan is concentrated mainly in the western portion of the South of Market, also going north across Market Street.

The South of Market Community Action Network (SOMCAN) is a multi-racial community-based organization that directly organizes and serves working-class immigrant communities in the South of Market, with a focus on children, youth, families, and seniors. SOMCAN works with residents and community members to collectively impact and direct the trajectory of land use and planning in the South of Market in a way that will benefit instead of negatively impact their community. This work involves challenging the consecutive waves of gentrification and displacement that have struck the South of Market. Our work aims to build equity, as well as social and economic justice in the South of Market.

The comment period allowed for this type of environmental review document, given its large scope as a Plan Area EIR, is extremely insufficient. Allowing barely 45 days to respond to this

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over 800 page technical document is a flaw of the evaluation process as it greatly limits who can review it and respond to it. A more extensive public review must be given to a proposal of this scope, especially given attempts at the state level to further streamline development by reducing public input. Area Plans already work to streamline development by providing a “program-level” EIR for applicable projects in the Plan Area; such streamlining must be met with a more thorough and balanced public review and input process.

2
cont'd

Below are comments regarding The Hub, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District Draft Environmental Impact Report. The Draft Environmental Impact Report shall be referred to as “the report,” and the Hub Plan as well as the individual development projects at 30 Van Ness Avenue and 98 Franklin Street shall be collectively referred to as “the plan.”

3

SOMCAN’s areas of concern are:

- 1. VMT impacts not adequately studied, especially when considering TNCs, and socioeconomic make-up of new residents not studied**
- 2. Impact of TNCs, driving hazards, pedestrian safety hazards, bicycling hazards, and impact to transportation are not adequately studied**
- 3. Impact of electric foot scooters not studied**
- 4. Air quality and wind impacts not adequately studied**
- 5. Impact of displacement not studied**
- 6. Number of residential units possible under the plan unstable, inconsistent, and not fully understood or studied in the report**
- 7. Trend of residential housing not used as traditional housing not studied**
- 8. Impacts of new jobs not adequately studied**
- 9. Use of the Housing Sustainability District by Individual Projects Must Trigger a New, Complete, and Separate EIR Analysis**

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Explanation of concerns:

1. VMT impacts not adequately studied, especially when considering TNCs, and socioeconomic make-up of new residents not studied

The Vehicle Miles Travelled (VMT) impacts in the report are not adequately studied. The report states on page 3.B-63 that the plan “would not cause substantial additional VMT or induced automobile travel. (Less than significant).” This conclusion is reached by looking at VMT per capita for conditions with the implementation of the plan, as well as assessing consistency with the Sustainable Communities Strategy (Plan Bay Area 2040).

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With the introduction of Transportation Network Companies (TNCs) such as Uber and Lyft, calculations of VMT have been rapidly shifting. For this reason, the conclusion that the plan would have a “less than significant” impact on VMT is premature and likely grossly understated. This is supported by recent data that has been released by TNC companies which show enormous impacts to San Francisco total VMT and traffic. As reported in an August 5, 2019 article by Citylab, data released in an August 2019 report by Uber and Lyft through the consultant Fehr & Peers shows that the VMT impact of TNCs in San Francisco is nearly twice that estimated by the San Francisco County Transportation Authority in 2018 (based on 2017 data), with Uber and Lyft alone making up some 13.4% of all VMT in San Francisco.¹ Impacts to VMT have not been adequately studied in the report.

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There is also an inadequate understanding of the economics of the type of development that is encouraged by the plan, as well as the type of development called for under Plan Bay Area 2040. As the plan and Plan Bay Area 2040 cater overwhelmingly to luxury market-rate development (both residential and commercial), there is inadequate study as to the modalities of transportation preferred by people of higher incomes, especially in San Francisco where extremely high incomes support convenience over cost. When very high income earners, as San Francisco continues to see an increase of as lower-income residents continue to leave the city - there is a direct inversion happening,² have endless amounts of disposable income this affects how they relate to transportation. Transportation infrastructure in San Francisco has not kept up with the rate of population expansion, and continues to lag behind. This creates the condition in which you can get around San Francisco faster and more efficiently in a private automobile - either individually owned or through the use of TNCs; and with endless disposable income this becomes the default option. A recent July 25, 2018 report by Schaller Consulting titled “The New Automobility: Lyft, Uber and the Future of American Cities,” reports that “People with a bachelor’s degree, over \$50,000 in household income, and age 25 to 34 use TNCs at least twice or even three times as often as less affluent, less educated and older persons;” and more specifically, the report shows that households that make \$200,000 or more use TNCs for trips 45 times per year, while households making less than that use TNCs for trips 18 times a year, with households making \$15,000 or less a year using TNCs only 6 times a year - this last statistic points to an almost nine times difference in the use per year of households making over \$200,000 versus households making less than \$15,000 a year.³ This is not studied in the report and shows how the understanding and study of VMT and the socioeconomic make-up of new residents are inadequate.

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¹<https://www.citylab.com/transportation/2019/08/uber-lyft-traffic-congestion-ride-hailing-cities-drivers-vmt/595393/>

²<https://48hills.org/2016/10/who-is-moving-into-and-out-of-sf/>

³ <http://www.schallerconsult.com/rideservices/automobility.pdf>

2. Impact of TNCs, driving hazards, pedestrian safety hazards, bicycling hazards, and impact to transportation are not adequately studied

Driving hazards are not adequately studied in the report. The report states on page 3.B-68 that the plan “would not create major driving hazards. (Less than Significant).” This is rationalized by the following: “traffic volumes would be distributed among multiple streets in the transportation study area,” and also because of new streetscape and street network improvements, and new commercial and passenger loading zones (pages 3.B-68 - 3.B-70). TNCs are not considered at all in the driving hazards analysis. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to driving hazards as well, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas.

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Pedestrian safety hazards are not adequately studied in the report. The report states that the plan “would not result in hazardous conditions for people walking or otherwise interfere with accessibility for people walking to the project site or adjoining areas (Less than Significant)” (page 3.B-74). Although the report acknowledges a large increase in the number of pedestrians in the area that would occur, it concludes that streetscape and street network improvements would eliminate hazardous conditions and interference of accessibility for pedestrians. TNCs are not considered at all in the analysis of hazards to people walking. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to walking and pedestrian safety hazards as well, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas. The city’s own reports show the Market Street and Van Ness Avenue intersection and area as one of the most dangerous for pedestrians in the city (the precise area of where the plan proposes new development). As described by a April 7, 2016 Hoodline article, “According to the city, South Van Ness from Market to 12th streets saw a rate of 118 injuries per mile from 2005-2011, including 28 severe or fatal injuries per mile. When weighing severe and fatal injuries more heavily, as the SFMTA has done for each high-injury corridor, the total spikes to 175 injuries per mile. Using city data from 2005-2012, the driving navigation app Waze conducted its own study last fall and named the nearby intersection of Market, Van Ness, Mission and Otis streets one of the most dangerous in the nation. ‘This enormous intersection has 17 lanes of traffic and 7 crosswalks,’ the report said. ‘Between 2005 and 2012, there were 92 vehicle collisions here: six with bicycles, 12 with pedestrians, and 74 with other cars.’”⁴ In the context of the reality of existing pedestrian safety hazards in this area, the report does not adequately study how an increase in vehicles would not increase walking hazards. The report states “The 30 Van Ness Avenue Project would provide a passenger

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⁴ <https://hoodline.com/2016/04/pedestrians-beware-the-7-most-dangerous-corridors-in-the-heart-of-sf>

loading/unloading zone on Van Ness Avenue and adequately accommodate people getting into and out of vehicles” (page 3.B-78). This statement is contradicted later in the report as described at length below in the last paragraph of point #2 (“Driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation are not adequately studied in the report”) of this letter. Further, socioeconomic factors are not studied in the report, leading to a lack of study of who exactly the pedestrians are that bear the brunt of new hazards generated. According to the San Francisco Department of Public Health, as reported in a September 3rd, 2019 SF Examiner article, homeless people are disproportionately killed in traffic-related incidents, with homeless individuals making up less than one percent of the city’s population but accounting for twenty-two percent of recent traffic deaths.⁵ This shows a clear socioeconomic impact that is not studied in the report. Homeless San Franciscans are going to be at an increased risk of traffic-related deaths due to increases in automobile traffic and usage. As the plan does not provide any means of housing the houseless population in San Francisco, nor does it aim to try and do so, this represents a flaw in the analysis provided by the report. For all of these reasons, the walking and pedestrian safety hazards are not adequately studied in the report.

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Bicycling hazards are not adequately studied in the report. The report states that the plan “would not result in hazardous conditions for people bicycling or otherwise interfere with bicycle accessibility. (Less than Significant),” and “The new bicycle trips...would use the existing system of bicycle routes and bicycle lanes” (page 3.B-80). Although the report acknowledges an increase in the number of bicyclists in the area that would occur, it concludes “streetscape and street network improvements would not create hazardous conditions for people bicycling or interfere with bicycle accessibility in the area...Thus...the impacts of the Hub Plan on people bicycling would be less than significant” (page 3.B-81). The report states the Hub Plan would not create bicycling hazards because the streetscape and street network improvements would not create hazards for people bicycling - this logic is essentially flawed and is illogical and does not even reference new development or driving impacts. Coming to the conclusion that street and network improvements would not be hazardous and therefore the plan would not be hazardous to bicyclists is a flaw of the report. Actual impacts to bicyclists must be studied in relation to increased traffic impacts - not street and network improvements. TNCs are not considered at all in the analysis of hazards to bicyclists. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to bicycling hazards as well, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas. As reported in a November 11, 2018 SF Examiner article which looks at CHP crash data contained in an analysis written by the legal firm of Walkup, Melodia, Kelly & Schoenberger, the stretch of Market Street from 11th Street to just past the Central Freeway (the exact area where the plan is proposed) is the second most dangerous area of the city for

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⁵ <https://www.sfexaminer.com/news/homeless-residents-at-high-risk-of-death-in-traffic-collisions/>

bicyclists.^{6,7} In the context of the reality of existing bicycling hazards in this immediate area, the report does not adequately study how an increase in vehicles would not increase bicycling hazards. For these reasons, the bicycling hazards are not adequately studied in the report.

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Transportation impacts are not adequately studied in the report. The report states that the plan “would not substantially delay local or regional transit...(Less than Significant)” (page 3.B-70). Although the report acknowledges that “Implementation of the Hub Plan would increase transit travel times because of a combination of factors, including additional vehicular traffic and transit ridership generated by subsequent development under the Hub Plan as well as proposed changes to the roadway network” (page 3.B-70), the report concludes that no significant impacts would occur because “the increases in transit travel times for all of the routes would be less than the significance threshold of four minutes or half the headway” (page 3.B-71). TNCs are not adequately studied in the analysis of impacts to transportation. In addition to the points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) which apply to transportation impacts, there is no consideration of the idling that occurs by TNCs nor their actual patterns of pick-up and drop-off which largely include stopping in the middle of the road, in bus stops, in crosswalks, bike lanes, and other dangerous and illegal areas. This is a flaw of the report. Further, the lack of new transportation infrastructure is not adequately studied in the report. As San Francisco continues to grow in population (as will significantly occur under the plan), public transportation in San Francisco continues to become increasingly negatively impacted. The lack of study of impacts to existing infrastructure in the face of this reality is a flaw of the report. For these reasons, the impacts to transportation of the plan studied in the report are inadequate.

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The report contradicts itself in terms of determining impacts to driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation when describing loading impacts under the Hub Plan. The following statements from the report speak to this point: “The Hub Plan could result in commercial vehicle and passenger loading demand that could not be accommodated off-street or within curbside loading spaces, which could result in potentially hazardous conditions or significant delays for transit, people bicycling, or people walking. (Significant and Unavoidable);” “It is possible that an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading spaces, particularly for larger buildings that could be developed under the Hub Plan, could disrupt circulation for transit, vehicles, people walking and people bicycling, and create potentially hazardous conditions;” “The Hub Plan streetscape and street network improvements would not substantially change the existing on-street commercial loading supply within the parking and loading study area. There would be a net increase of five commercial loading spaces and four passenger loading spaces;” and “Some streetscape and street network improvements would include removal of on-street vehicular parking on some blocks, which may restrict the creation

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⁶ <https://www.sfgate.com/local/article/Most-dangerous-bicycle-collisions-fatal-crashes-SF-13375886.php>

⁷ <https://www.walkuplawoffice.com/2018/10/12/most-dangerous-areas-for-san-francisco-bicyclists-new-study/>

of new on-street commercial and/or passenger loading zones. Therefore, in some instances, subsequent development under the Hub Plan...may result in an inadequate supply of off-street commercial loading spaces and/or on-street commercial loading and passenger loading spaces, which could disrupt circulation for transit, vehicles, people bicycling, and people walking and create potentially hazardous conditions” (pages 3.B-83 - 3.B-84). The report goes into more detail when discussing cumulative loading impacts and comes closer to acknowledging the reality of how TNCs operate by stating, “The Hub Plan, in combination with past, present, and reasonably foreseeable projects in the vicinity, would contribute considerably to significant cumulative loading impacts (Significant and Unavoidable);” and “to the extent that loading demand associated with subsequent development under the Hub Plan is not accommodated onsite or within existing or planned on-street commercial loading spaces, double parking and the illegal use of sidewalks and other public spaces are likely to occur, with associated disruptions for transit vehicles, other vehicles, people bicycling, and people walking, and create potentially hazardous conditions” (pages 3.B-99 - 3.B-100). This all shows direct contradictions within the report itself regarding commercial and passenger loading zones, highlighting how driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation are not adequately studied in the report. Commercial and passenger loading spaces are used to justify many of the determinations around driving hazards, pedestrian safety hazards, bicycling hazards, and impacts to transportation, and this is directly contradicted in the report itself. This is a flaw of the report and shows further how the above areas of impact are not adequately studied.

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3. Impact of electric foot scooters not studied

The report does not study the impact of electric foot scooters which is a flaw of the report. San Francisco has been a test-bed for electric foot scooters (starting in March 2018) with huge negative impacts to pedestrian safety, driving safety, bicycling safety, and the environment. Electric foot scooters, currently provided by companies such as Skip and Scoot, pose a significant risk to walking, driving, and bicycling hazards. These scooters are ridden illegally on sidewalks posing huge risks to pedestrians. Additionally, these scooters are ridden in bike lanes and on city streets in car lanes, increasing safety hazards for those riding the scooters, riding bicycles, and driving in cars.

As reported in an August 8, 2109 VOX article, a recent study in the peer-reviewed journal *Environmental Research Letters* explains that electric foot scooters are worse for the environment than other modes of transportation, and are actually taking people away from otherwise using public transportation or walking; additionally, electric foot scooters rely on the use of automobiles to collect the scooters at night - so there is actually an increase in VMT impact and overall increase in driving/cars on the road impact as well - with the article stating “Scooters typically produce more emissions than a standard bus with high ridership, an electric

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moped, an electric bicycle, a regular bicycle, or a good old carbon-free walk.”^{8,9} None of this is studied in the report and is a flaw of the report.

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4. Air quality and wind impacts not adequately studied

Air quality impacts are not adequately studied in the report. TNCs are not adequately considered or studied in the report. The points made about TNCs as described in this comment letter under point #1 (“VMT impacts not adequately studied in the report”) apply to increased air quality impacts by the plan that are not considered in this report. Also, the impacts to air quality due to electric foot scooters are also not considered in this report. As was stated earlier, the use of electric foot scooters rely on automobiles that are used to pick up scooters at night. The lack of study of impacts to air quality is a flaw of the report.

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Wind impacts are not adequately studied in the report. The report states that wind impacts from the plan would be less than significant with mitigation, but continues stating that “Building articulation and landscaping features for subsequent development projects could eliminate the 11 net new hazard criterion exceedances that were identified in the Hub Plan condition. However, because these details have not been developed and cannot be known at this time, it is not possible to assess the effects that these specific design measures for future buildings may have on winds in the Hub Plan area and vicinity. Therefore...the Hub Plan could result in 11 net new exceedances of the one-hour per year hazard criterion, resulting in a significant impact” (pages 3.E-13 - 3.E-22). Further, cumulative impacts are identified in the report with regard to wind as significant and unavoidable with mitigation (page 3.E-36). This points to the clear need to have further study of wind impacts from the plan as the current study is inadequate. The current Market Street and Van Ness Avenue intersection is already an existing and known wind tunnel, something that is especially dangerous for seniors. Given the existing conditions of this area and the intensity of new development that is proposed (combined with increases in automobile, pedestrian, and bicycle traffic), wind impacts need further study.

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5. Impact of displacement not studied

There are environmental impacts due to displacement of residents from their homes or small businesses in SoMa, especially when considering the huge increase in VMT that will result from the plan that are not studied in the report.

The plan encourages luxury, high end housing in SoMa, which in turn encourages the price of other housing to increase. Landlords of adjacent properties begin to charge more rent to cash in on the new populations in the nearby luxury condos or new high-end shops. The plan upzones a large swath of land. Upzoning of property increases the values of the underlying land,

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⁸<https://www.vox.com/future-perfect/2019/8/8/20759062/electric-scooter-environment-climate-change-bird-lime>

⁹ <https://iopscience.iop.org/article/10.1088/1748-9326/ab2da8>

which leads to increased costs for residential and commercial tenancies and increased sale prices. Therefore existing residents or small businesses that are paying less than the new market rate will be forced out. Upzoning incentivizes tearing down existing housing and existing small businesses so that developers can maximize the new build-out potential of that property. Coupled with the relaxing of local controls and push to have less local approval hearings, there will be less incentive for developers to provide “right to return” or provide increased levels of affordability to existing residents or businesses that will be forced out when the buildings are torn down. There are no new protections being implemented by the plan for existing tenants against displacement or evictions.

Large-scale displacement creates a significant environmental impact when considering CEQA’s “Vehicle Miles Travelled” standard. Working class and lower income households get displaced outside San Francisco and their commutes increase, increasing their VMT. When people who work in SoMa are displaced, they will often retain their employment in SoMa, therefore their VMT will increase. Many existing residents in SoMa can not afford the luxury homes that are and will be built in SoMa and access to affordable housing is extremely limited, so if for any reason they need to move out, it’s highly unlikely they will move be able to stay in the neighborhood.

Furthermore, much of the luxury housing that gets built doesn’t provide housing even though it’s approved by Planning to be residential housing units. When these units are used as “pied-a- terres” or “short term rentals” or “corporate rentals,” they are not helping to alleviate any housing shortage, because although they are approved by Planning as residential use, they are not in fact used for residential purposes. Therefore people are being displaced and commuting farther for work, meanwhile the new housing units aren’t necessarily supporting residents being able to live in homes close to their work.

Replacing low income residents with higher income residents replaces a population with lower car ownership with a population that has a higher rate of car ownership, and more affluent people are also more likely to use TNC services (discussed earlier above). There are also tech shuttles that service SoMa residents to take them to their offices on the Peninsula. The impacts of the increased VMT caused by the new, more affluent populations which is encouraged in the plan is not considered in the report. None of the above impacts in regards to gentrification and displacement are studied in the report.

6. Number of residential units possible under the plan unstable, inconsistent, and not fully understood or studied in the report

The San Francisco Planning Department has publicly presented and stated that a significantly higher number of residential units can be built under the proposed rezoning than has been studied in the report. On March 8th, 2017 the Planning Department presented in a public

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workshop that the Hub rezoning would result in 9,050 new residential units.¹⁰ On April 4th, 2018, the Planning Department presented to San Francisco Bay Area Planning and Urban Research Association (SPUR) that the Hub rezoning would result in 12,000 new residential units.¹¹ On June 11th, 2019, the Planning Department presented in a public workshop that the Hub rezoning would result in 9,710 new residential units.¹² On July 11th, 2019, the Planning Department presented to the San Francisco Planning Commission that the Hub rezoning would result in 7,300-9,000 new residential units. On August 15th, 2019 the Planning Department responded to an email inquiry from SOMCAN stating that “The Hub Plan amendment proposes to increase heights on 18 parcels. This increase could add an additional 1700 units. We anticipate that the existing zoning would allow for about 8000 units. We anticipate the proposed zoning (increased heights on 18 parcels) would allow for about 9700 units” (see Attachment A). These public workshops, public hearings, and email communication show a significantly higher number of new residential units that would come from the proposed rezoning than is studied in the report. The most recent e-mail communication shows that there is the ability for up to 9,700 new residential units under the proposed rezoning in the Hub Plan amendment. On August 16th, 2019 SOMCAN inquired to the Planning Department via email whether or not the 9,700 new residential units that would be allowed under the Hub Plan amendment accounted for the use of any density bonuses allowed by the state, “The 9,700 residential units allowed as determined by the Planning Department DOES NOT include the use of the state density bonus (i.e. this number would be higher if density bonus is used), correct?” (see Attachment A). In response to this email, on August 16th, 2019 the Planning Department responded to SOMCAN’s email stating, “Yes, this number does not include the possibility for State Density bonus” (see Attachment A). The numbers for new residential housing units is unstable and continues to fluctuate, and as this is the basis for the plan, the whole plan itself continues to fluctuate and has been inconsistent and misleading.

The report states that “This proposed zoning would allow increases in heights for 18 sites. If all of these sites were to be developed to the proposed maximum height limit, the changes would result in approximately 8,100 new residential units (approximately 15,700 new residents). This estimate also assumes a 15 percent increase in the number of units to account for potential density bonuses allowed by either state or local regulations” (page S-2).

This shows a direct discrepancy between the max number of new residential units that would be allowed under the rezoning and the max number of new residential units that is studied in the DEIR report. Further adding to the size of this discrepancy is the fact that the Planning Department estimates for new residential units does not take into account the use of density bonus, while the DEIR report does take this into account.

¹⁰http://default.sfplanning.org/plans-and-programs/in-your-neighborhood/hub/Hub_presentation_Workshop3_Final_Web.pdf

¹¹<https://citypln-m-extnl.sfgov.org/SharedLinks.aspx?accesskey=51f9c1c9ae48dc86623a7a0dba13ffd510e14a544d0e5fe5f50aace58a07aeb8&VaultGUID=A4A7DACD-B0DC-4322-BD29-F6F07103C6E0>

¹² http://default.sfplanning.org/plans-and-programs/in-your-neighborhood/hub/workshop04_boards.pdf

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This shows that in the DEIR report the number of residential units possible under the plan is unstable, inconsistent, and not fully understood or studied. This is a critical flaw of the report.

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7. Trend of residential housing not used as traditional housing not studied

The trend of residential housing not being used as traditional housing is not studied in the report. It is environmentally important to ask the question, who are we building new housing for? In regards to housing, without adequate controls and enforcement in place:

- New condos will be affordable only as high end luxury housing or sitting vacant because they are owned by investors who have no intention of living in these units;
- new condos will be used as commercial “short term rentals” instead of as residential use; and
- new condos will be used as “corporate rentals” instead of as residential use.

The inadequacy of the DEIR is that it studies the impacts of residential development as though it will be used for residences. The environmental impacts of corporate rentals, short term rentals and other commercial uses are different from residential uses. Without sufficient controls and enforcement, there is no way to ensure that new housing that is incentivized to be built under this new land use plan will be used as housing.

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Based on trends with recent high-rise residential towers like the Millennium Tower and the Avery, the upper floors of these high-rise towers are built as massive luxury condos in order to capture the highest end of the market. These units get occupied at a very slow pace - so slow that they have no impact except to stay vacant until some of the wealthiest buyers decide to invest in them. This must be studied in the report.

The use of housing for non-traditional uses has ramifications for the population projections in the report. If units are master leased for short term rentals, the turnover is intense. The use of these units as corporate rentals and tourist rentals under a master leasing arrangement gets around the current short term rental restrictions. New services such as Podshare create more intense uses and transient occupancies which change the projections for intensity of population increase.¹³ Though the sizable impact and reality of short-term rentals exists in San Francisco, this trend is not studied at all in the report.

8. Impacts of new jobs not adequately studied

The impact of new jobs created by the plan are not adequately studied in the report. New jobs created by the plan are barely discussed in the report, but there is a mention in the section on “Other CEQA Considerations,” specifically under “Growth Inducement” impacts. The report states, “The Hub Plan could also result in up to approximately 275 new jobs. Although the number of jobs anticipated as a result of 30 Van Ness Avenue and 98 Franklin Street projects

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¹³ <http://podshare.com/>

(1,524) surpasses the total number of jobs for the entire Hub Plan area (275), it is expected that other sites throughout the Hub Plan area that currently include non-residential uses (and, therefore, jobs) would, over time, be replaced with residential uses, resulting in an overall net increase of approximately 275 jobs area-wide” (page 4-7).

The report does not take into account what types of jobs currently exist based on the existing zoning and what types of jobs they could be replaced by. As new commercial space and development will seek higher rents, the socioeconomic make-up of these new workers and employees could very well be higher income. If new workers under the plan are of a higher income than the existing workers, this will have material changes on the traffic patterns (use of private automobiles, TNCs) and therefore environmental impacts. This is not studied in the report.

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9. Use of the Housing Sustainability District by Individual Projects Must Trigger a New, Complete, and Separate EIR Analysis

The report discusses the Housing Sustainability District stating, “The EIR evaluates the designation of portions or all of the Hub Plan area as an HSD...Designation of an HSD...would allow the City to exercise streamlined ministerial approval of residential and mixed-use development projects meeting certain requirements within the HSD” (page 2-7). The scale of new development proposed by the plan is so large in scope and is already being granted a streamlining of development through the process of a program-level EIR under the rubric of an area plan, that any additional large-scale streamlining of an entire area through the designation of a Housing Sustainability District makes the area plan program-level EIR inadequate and incomplete. There must be a separate and complete project-level EIR (separate and independent of this EIR) analysis required for any development that takes advantage of the Housing Sustainability District. By layering an additional blanket of streamlining via the HSD on top of an existing area plan (which is already an instrument of streamlining) without additional study obscures the intention of a program-level EIR for area plans.

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Conclusion: DEIR Does Not Adequately Study Impacts or Alternatives

The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District DEIR is inadequate and does not study the full impacts of the proposed changes. The DEIR must be revised to address these critical flaws as outlined above.

As described in the report, p. 1-2 "CEQA requires that the lead agency neither approve nor implement a project unless its significant environmental effects have been reduced to less-than-significant...If the lead agency approves a project that would result in the occurrence of significant adverse impacts that cannot be mitigated to less-than-significant levels, the agency must state the reasons for its action in writing, demonstrate that its action is based on the EIR or

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other information in the record, and adopt a Statement of Overriding Considerations" (page 1-2). The report also states "Alternatives Considered But Rejected: In developing the Hub Plan...the project sponsors considered multiple alternative concepts/designs for development of the project area and the project sites within it...The department reviewed these alternative concepts as potential strategies for reducing or avoiding the significant adverse impacts that were identified for the Hub Plan" (page 5-75).

No Project Alternative was studied or presented that actually meets the needs of working-class families and immigrants in the South of Market. Instead of planning for increased gentrification and displacement, what instead must occur is a community-led and community-based planning process that places as the priority existing community needs, especially the needs of those who have the least economic and political power. Such an alternative would take into account the needs of the existing community specifically regarding affordable housing and the stabilization of existing affordable housing, and would reduce the environmental impacts presented by the current plan. The Hub Plan must be revised to reflect this and a Project Alternative must be provided that meets these community needs.

The report and stated mitigations are insufficient. Another Project Alternative that has not been yet presented, such as the one described above, must be adopted in order to more fully mitigate environmental impacts, or a Statement of Overriding Considerations must be presented.

The DEIR review and input process did not allow for sufficient time for the public to respond to a proposal that will have tremendous impacts on not just the South of Market, but the entire city. The potential addition of some 8,000 to 9,700 (again, the numbers are unclear) new majority market-rate housing units that will house mainly wealthy residents will substantially contribute to existing gentrification and displacement impacts.

Thank you for the opportunity to comment on the proposed project and the Draft EIR.

Sincerely,

Angelica Cabande
SOMCAN
Organizational Director

Joseph Smooke
SOMCAN
Board Chair

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Attachment A: Email Communication Between SOMCAN and the San Francisco Planning Department

Webmail - Read Message

<https://mbox.server289.com/readmessage.php?msg=6537&fold...>



Blue theme

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dwoo@somcan.org

Read Message - Inbox

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From: [Langlois, Lily \(CPC\)](#) <lily.langlois@sfgov.org> [Add to Address Book](#) [Add to Whitelist](#)

To: dwoo@somcan.org <dwoo@somcan.org>

[Peter Papadopoulos](mailto:ppapadopoulos@medasf.org) <ppapadopoulos@medasf.org> [\(Added to Address Book\)](#)

Cc: [Flores, Claudia \(CPC\)](mailto:claudia.flores@sfgov.org) <claudia.flores@sfgov.org> [\(Added to Address Book\)](#)

[Torrey, Andre \(CPC\)](mailto:dre.torrey@sfgov.org) <dre.torrey@sfgov.org> [Add to Address Book](#)

Sent: Aug 16 '19 12:59

Subject: Re: Additional Questions to Discuss RE: Market Octavia Plan Amendment

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Hi David,

1. Yes, this number does not include the possibility for State Density bonus.
2. I'll get back to you on the jobs numbers.

Thanks,
Lily

> On Aug 16, 2019, at 12:10 PM, "dwoo@somcan.org" <dwoo@somcan.org> wrote:

>

> Thank you Lily for this. Two clarifying questions:

>

> 1) The 9,700 residential units allowed as determined by the Planning Department DOES NOT include the use of the state density bonus (i.e. this number would be higher if density bonus is used), correct?

>

> 2) Re-office and commercial: What is the max number of new commercial jobs that would be allowed? From that number, what of that would be office jobs?

>

> Thank you,
> David
> -----
> David Woo
> Community Development Coordinator
> South of Market Community Action Network
> 415.255.7693 (office)
>
>
>> -----Original Message-----
>> From: Langlois, Lily (CPC) <lily.langlois@sfgov.org>
>> To: dwoo@somcan.org <dwoo@somcan.org>, Peter Papadopoulos <ppapadopoulos@medasf.org>
>> Cc: Flores, Claudia (CPC) <claudia.flores@sfgov.org>, Torrey, Andre (CPC) <dre.torrey@sfgov.org>
>> Subject: RE: Additional Questions to Discuss RE: Market Octavia Plan Amendment
>> Sent: Aug 15 '19 17:12
>>
>> Hi David and Peter,
>>
>> I wanted to get back to you on your questions. See my responses below. Happy to answer any additional questions. We will be in touch to schedule a follow up meeting in September to report back on synergy with the Community Stabilization Strategy and application of the Racial Equity Tool.
>>
>> Thanks
>> Lily
>>
>>
>> - Why is there no consolidated "plan" to show/educate the public?
>> There will not be a separate plan for the "Hub". Rather, there will be an amendment to the Market Octavia Plan. We are in the process of drafting text edits and updating maps. Once we have a draft we will share the document and welcome public feedback. In the meantime, we have published a height proposal, zoning proposal, public benefits proposal and a Public Realm Plan which includes conceptual design for the streets and alleys. See links on the project website <https://sfplanning.org/market-street-hub-project#updates>
>>
>> - 30 Van Ness and 98 Franklin → How do these projects relate to the Hub (all part of same DEIR)? Are these numbers counted in the "Hub" presentations to the public?
>> These two projects are being analyzed in the Hub EIR. The numbers for these two projects are included in the total numbers for the Hub.
>>
>> - What is the office component of the Hub plan?
>> Office is allowed in the Hub. However, the current zoning and the proposed zoning are intended to ensure that residential uses are the primary land use. Under the current zoning, non-residential uses are not allowed above the 4th floor and for every 1 sq/ft of non-residential use there must be 2 sq/ft of residential use. The zoning proposal would allow non-residential uses above the 4th floor, but increase the ratio of non-residential uses to residential uses and require 3 sq/ft of residential for every 1 sq/ft of non-residential uses. With the current zoning proposal, we do not anticipate a significant increase in the amount of office.
>>
>> - What are the actual numbers for new housing and jobs (and the "additional" that amendment gives, because these numbers include original rezoning)? Several different numbers have been given over the last 3 years
>> The amendment proposes to increase heights on 18 parcels. This increase could add an additional 1700 units.
>> We anticipate that the existing zoning would allow for about 8000 units.
>> We anticipate the proposed zoning (increased heights on 18 parcels) would allow for about 9700 units.
>> These estimates include entitled projects, projects under construction, projects under review, and other sites that do not have a development proposal.
>> In addition to what the existing and proposed zoning would allow for, we estimate that there are around 3500 units on the ground today
>>

>> The EIR says the Hub Plan would have 8100 units. Which I can see is confusing. The categories of projects that are analyzed in an EIR differ slightly then what is included above. I am working with our EIR staff to explain these differences and I will get back to you shortly.

>>

>> - For new affordable housing:

>> -->What is the breakdown of target AMI for the new residential units?

>> The Citywide rules would apply to this area. See chart 5, on page 6.

>> http://forms.sfplanning.org/Inclusionary_Affordable_Housing_Affidavit.pdf

>>

>> -->What is the breakdown of the unit sizes?

>> There are requirements for unit size for BMR units. This is something MOHCD regulates. There are no requirements for unit size for the market rate units.

>>

>> There are requirements for the dwelling unit mix. The requirements depend on the zoning district. For parcels zoned NCT-3 see Planning Code Section 207.6. For parcels zoned C3G see Planning Code Section 207.7

>>

>> -->Are they going to allocate percentages of the units for Homeless certificate household (what is the percentage), Ellis Act certificates (what is the percentage), etc.

>> This is something that MOHCD would regulate for the BMR units.

>>

>>

>> Lily Langlois

>> Principal Planner, Citywide Planning

>>

>> Planning Department | City and County of San Francisco

>> 1650 Mission Street, Suite 400, San Francisco, CA 94103

>> Direct: 415-575-9083 | Fax: 415-558-6409

>> Email: lily.langlois@sfgov.org

>> Web: www.sfplanning.org

>>

>> Please note: I am in the office on Monday, Tuesday and Thursday

>>



August 29, 2019

San Francisco Planning Commission
1650 Mission Street, Suite 400
San Francisco, CA 94103

Re: August 29, 2019 Planning Commission Hearing Agenda Item No. 11
The Hub Plan (Market Octavia Plan Amendment)

Dear Planning Commissioners:

SPUR supports the proposed amendment the Market Octavia Plan through The Hub Plan, which would allow 1,640 additional housing units in a key location and increase public benefits generated in this plan area by 30%, from approximately \$725 million to nearly \$950 million. SPUR was a major supporter of the Better Neighborhoods community planning efforts that included Eastern Neighborhoods, Market Octavia and other plans ten years ago. These plans sought to comprehensively address how the city could accommodate growth in key locations and build out community infrastructure in tandem. Market Octavia has largely been seen as a success, with thousands of new infill housing units, significant affordability and visible improvements to the public realm.

In the years since Market Octavia was adopted, it has become clear that the city overall has not produced sufficient housing for those who want to be here. The Hub Plan is a strategic effort today to increase capacity in a central, transit-oriented location that is appropriate for both jobs and housing. Adding more height to the key sites in The Hub Plan will create significantly more benefits for the community: more affordable housing, more public realm investments and more funding for childcare and transit.

San Francisco needs more housing opportunities, soon. The Hub Plan is one of many tools the city must use to create these much-needed homes.

We also urge the Planning Department to embark on a new set of area plans across San Francisco. The Hub Plan is the only significant area plan work underway today, and it is not a full area plan.

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Thank you for the opportunity to weigh in on this important area plan amendment. Do not hesitate to contact me if you have any questions.

Best,

A handwritten signature in black ink, appearing to read 'KWang', with a stylized flourish at the end.

Kristy Wang
Community Planning Policy Director

cc: Supervisor Vallie Brown, District 5
Supervisor Matt Haney, District 6
SPUR Board of Directors



September 6, 2019

O-TNDC

Elizabeth White
San Francisco Planning Department
1650 Mission St #400
San Francisco, Ca 94103

Re: Comments on DEIR for the Hub, 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Dear Ms. White,

On behalf of Tenderloin Neighborhood Development Corporation (TNDC), I write to express our thoughts on the DEIR for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District.

For over 30 years, TNDC has been preserving and rehabilitating existing buildings in the Tenderloin, SOMA and surrounding neighborhoods, which have historically served low-income and working-class communities. TNDC operates affordable housing in these neighborhoods, and we work with community stakeholders to understand their concerns and raise public awareness on issues that affect their quality of life.

TNDC submitted a scoping letter on June 21, 2018, in response to the May 23, 2018 NOP. We are primarily concerned about the project's impacts on the low-income communities. On page s-7, you summarize many of the concerns you have heard in reference to the NOP, and direct us to Chapter Four for a "discussion of steps to mitigate impacts on lower-income Tenderloin and SoMA community." Unfortunately, we do not see where the needs of this population are specifically addressed in this chapter.

Additionally, on page s-7 we also are directed to Section 3.B to learn more about "requests for a community process where affected community members can give feedback on safer and walkable streets." We were also unable to find a section detailing a community process for impacted community members in this section.

While TNDC supports adding to the housing supply of the City, we believe that prioritizing the needs of low-income communities is paramount. We would like to see the needs of the surrounding low-income communities explicitly and thoughtfully addressed in this EIR.

Thank you for your attention to these issues. Please do not hesitate to reach out with any further questions.

Thank you,

Alexandra Goldman
Senior Community Organizing and Planning Manager, TNDC

Cc: Don Falk, CEO, TNDC

TENDERLOIN
NEIGHBORHOOD
DEVELOPMENT
CORPORATION

201 EDDY STREET
SAN FRANCISCO
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PH: 415.776.2151
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\\tndcnas\doc\general\community issues\land use & development\the hub\the hub deir comment letter.docx

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The Yerba Buena Neighborhood Consortium

c/o 230 Fourth St. San Francisco, CA 94103

A Council of the Yerba Buena Neighborhood's Residents and Community Organizations

San Francisco Planning Commission
City Hall
San Francisco CA 94102

August 29, 2019

RE: Hub Area Plan
2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Commissioners:

This EIR does not satisfy the requirements of CEQA.

One has to go to page 786 to learn the most crucial project information of all to start with:

“The total number of new residential units developed under Alternative A would be approximately 5,300 (compared to the potential for approximately 8,100 new units under the Hub Plan). Although it is probable that not all sites would be built out to the Market and Octavia Area Plan height limits, it is also likely that development on some parcels would take advantage of state and local density bonus programs, which would allow construction to heights that would be above current limits. Therefore, on balance, a buildout to existing height limits is reasonable for purposes of estimating development potential under this alternative.”

Elsewhere the DEIR states that estimated use of the State Density Bonus for the proposed project is 15%, which implies that the zoning changes alone would result in 7,043 new housing units total vs. the current zoning's 5,300 total units, an increase of only 1,743 housing units from the rezoning itself – a 32% increase.

Nowhere are these basic facts clearly stated in the DEIR. They belong up front in the Summary of course, along with comparable housing units totals for each Alternative.

The first legal flaw is the DEIR does not show any additional shadow impacts from projects using the SDB, neither the 18 upzoned properties nor all the rest – even though the DEIR assumes about ½ of future residential developments will in fact use the SDB, hence its projected 15% total increase in future housing units due to that.

In fact, the DEIR erroneously states on page 727:

“As discussed in Chapter 2, Project Description, the state density bonus program, as well as the City's Affordable Housing Bonus Program (codified in Planning Code section 206), would be applicable in the Hub Plan area. This would result in the potential for added height for affordable housing projects. However, the locations where project sponsors might use the state or local density bonus programs are not known. Although these bonus programs permit an increase in residential density beyond that otherwise allowed, and enable project sponsors to request waivers or modifications with respect to planning code requirements, including height limits, they do not exempt subsequent projects from being

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subject to CEQA review. Therefore, pursuant to state density bonus law, any project for which additional height is requested would be evaluated further under CEQA.”

But in fact, use of the SDB is not limited to “affordable housing projects” only. Any residential project can use it. And certainly if ½ of future projects do use it, then the overall shadow impacts could cumulatively be very much greater than those presented in the EIR. Furthermore, as the EIR notes the locations of future SDB projects is unknowable, so the only safe way to project such potential impacts is to assume every project takes full advantage of a potential 35% height limit increase, as if all area height limits were increased that much, in both the No Project and the Proposed Project Alternatives. This is a simple diagram to prepare, and the potential impacts are so much more than the DEIR’s estimates that deferring such analysis to future case-by-case studies is grossly inadequate – and in fact seriously misleading. The shadow impact consequences of the upzoning plus use of the SDB may be so negative that that factor alone strongly argues against the upzoning itself overall. This information MUST be available to the decision makers at this time to be relevant to public decision making processes at any time ever.

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The second legal flaw is that a very plausible Alternative – without any upzoning but including the attractive streetscape and other public realm improvement programs – is never even identified and evaluated. This certainly appears to be a bad faith manipulation of the CEQA process to intentionally deny decision makers the opportunity to consider that viable Alternative. Instead, in order to get the desirable public realm improvements they must also go along with the upzoning too, like it or not.

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While not a CEQA issue, it must also be noted that in exchange for the significant increase in property values resulting from the upzoning of 18 properties there is no increase at all in affordable housing requirements, nor application of any new fees, etc., beyond existing Market/Octavia Plan requirements for public and community benefits, such as a new Community Facilities District, etc.

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Hence this plan if adopted will create instant windfall land profits for those lucky 18 owners. Essentially that part is a sweetheart spot zoning plan. Who owns these properties?

Sincerely,

John Elberling
Manager

Cc: Susan Brandt-Hawley

I-Bowermaster

From: [CPC.HubPlanEIR](#)
To: [Daniel Bowermaster](#); [CPC.HubPlanEIR](#)
Subject: RE: Plans for 30 Van Ness etc.
Date: Thursday, August 15, 2019 1:23:03 PM

Hi Daniel,

Here is the link to the plans for 30 Van Ness Avenue:

<http://citypln-m-extnl.sfgov.org/External/link.ashx?Action=Download&ObjectVersion=-1&vault={A4A7DACD-B0DC-4322-BD29-F6F07103C6E0}&objectGUID={DC32213A-7D0A-4BF1-92CA-D65582AC1B36}&fileGUID={6EB735DF-DB9E-42A7-A216-71A7DD603D4F}>

Thank you,
Liz White

-----Original Message-----

From: Daniel Bowermaster <scramboleer@yahoo.com>
Sent: Tuesday, August 13, 2019 3:28 PM
To: CPC.HubPlanEIR <CPC.HubPlanEIR@sfgov.org>
Subject: Plans for 30 Van Ness etc.

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hello,

Would you please email me the plans for this project? **I** 1

Thank you.

Dan Bowermaster
505 Oak

I-Goodman (1)

From: [White, Elizabeth \(CPC\)](#)
To: [CPC.HubPlanEIR](#)
Cc: [Sheyner, Tania \(CPC\)](#)
Subject: FW: HUB Plan - there are solutions - feedback to thursday's agenda item - A.Goodman
Date: Tuesday, August 27, 2019 12:53:52 PM

Fyi.

From: CPC-Commissions Secretary <commissions.secretary@sfgov.org>
Sent: Tuesday, August 27, 2019 12:06 PM
To: Richards, Dennis (CPC) <dennis.richards@sfgov.org>; Fung, Frank (CPC) <frank.fung@sfgov.org>; Johnson, Milicent (CPC) <milicent.johnson@sfgov.org>; Koppel, Joel (CPC) <joel.koppel@sfgov.org>; Moore, Kathrin (CPC) <kathrin.moore@sfgov.org>; Melgar, Myrna (CPC) <myrna.melgar@sfgov.org>; Rich Hillis <richhillissf@gmail.com>
Cc: Feliciano, Josephine (CPC) <josephine.feliciano@sfgov.org>; White, Elizabeth (CPC) <elizabeth.white@sfgov.org>
Subject: FW: HUB Plan - there are solutions - feedback to thursday's agenda item - A.Goodman

Jonas P. Ionin,
Director of Commission Affairs
Planning Department|City & County of San Francisco
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415-558-6309|Fax: 415-558-6409
jonas.ionin@sfgov.org
www.sfplanning.org

From: Aaron Goodman <amgodman@yahoo.com>
Sent: Monday, August 26, 2019 8:00 PM
To: CPC-Commissions Secretary <commissions.secretary@sfgov.org>
Subject: HUB Plan - there are solutions - feedback to thursday's agenda item - A.Goodman

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

I am unable to attend, but noted Tim Redmond's article on the Thursday planning commission meeting where the HUB is being discussed.

The lacking vision on this area is astounding. I see LYFT/UBER vehicles circling and blocking 9/9R buses on 11th constantly along with 49/47 and 14/14R buses. They circle the area like sharks.

The solution on the BRT to link south of van-mess down to Cesar Chavez and loop over to SFGH linking 3 hospitals CPMC, St.Luke's and SFGH would provide a much needed system that can connect to the mission bay hospital as well meaning 4 hospitals, inclusive of staff being able to get from one to another in a simple loop system.

Its not rocket science, its a basic connect the dots approach to transit hub, loop and linkages that I have emailed SFMTA staff and city agencies on prior.

Why we cannot get solutions for the HUB prior to the SOTA site moving downtown, or any other facility opening (see the music center being built) or another tower in progress including the city agencies on Van Ness and Mission.

This cannot be a non-impact. The transit and increase at such a major two intersections Van Ness and Market and Van Ness and Mission even down to the interchange and freeway on-ramps requires a more birds-eye-view and solutions that will solve for the future transit needs. The Van Ness corridor could have been an LRV extension down from the T/F line extensions, and routing more people down Van Ness to Cesar Chavez and Mission Bay...

Please do not ignore the growth impacts any longer, the rest of the city cannot get to where it

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I-Goodman (1)

needs to go, when the mess that is Van Ness continues without seriously un-clotting the system of cars, and providing adequate capacity, and speed to get people around town in 20 min. or less, without an uber or lyft.

Sincerely

Aaron Goodman D11

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cont'd

I-Goodman (2)

From: [White, Elizabeth \(CPC\)](#)
To: [CPC.HubPlanEIR](#)
Cc: [Sheyner, Tania \(CPC\)](#)
Subject: FW: Planning Commissioners and SFBOS - loop the south Van Mess line around cesar chavez... T-Line and F-Line on Van Ness and connect to Geneva Harney...
Date: Tuesday, September 03, 2019 10:11:04 AM
Attachments: [TF_line_hospital_link_0.pdf](#)
[T_Line_GENEVA_HARNEY_0.pdf](#)

From: CPC-Commissions Secretary <commissions.secretary@sfgov.org>

Sent: Tuesday, September 03, 2019 10:02 AM

To: Richards, Dennis (CPC) <dennis.richards@sfgov.org>; Fung, Frank (CPC) <frank.fung@sfgov.org>; Johnson, Milicent (CPC) <milicent.johnson@sfgov.org>; Koppel, Joel (CPC) <joel.koppel@sfgov.org>; Moore, Kathrin (CPC) <kathrin.moore@sfgov.org>; Melgar, Myrna (CPC) <myrna.melgar@sfgov.org>; Rich Hillis <richhillissf@gmail.com>

Cc: Feliciano, Josephine (CPC) <josephine.feliciano@sfgov.org>; White, Elizabeth (CPC) <elizabeth.white@sfgov.org>

Subject: FW: Planning Commissioners and SFBOS - loop the south Van Mess line around cesar chavez... T-Line and F-Line on Van Ness and connect to Geneva Harney...

Jonas P. Ionin,

Director of Commission Affairs

Planning Department!City & County of San Francisco
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Direct: 415-558-6309!Fax: 415-558-6409

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www.sfplanning.org

From: Aaron Goodman <amgodman@yahoo.com>

Sent: Tuesday, September 03, 2019 9:55 AM

To: CPC-Commissions Secretary <commissions.secretary@sfgov.org>

Subject: Planning Commissioners and SFBOS - loop the south Van Mess line around cesar chavez... T-Line and F-Line on Van Ness and connect to Geneva Harney...

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

See attached pdf

shows the route.... for the HUB

Would link the CPMC, St.Luke's and SFGH with a reconnect to the T-Line... or shoot it up Potrero and south to Bayshore to provide a secondary north south link to San Bruno ave and Brisbane....

think it out, its not rocket science, and the links/loops/connections will get people out of cars and onto public transit lines....

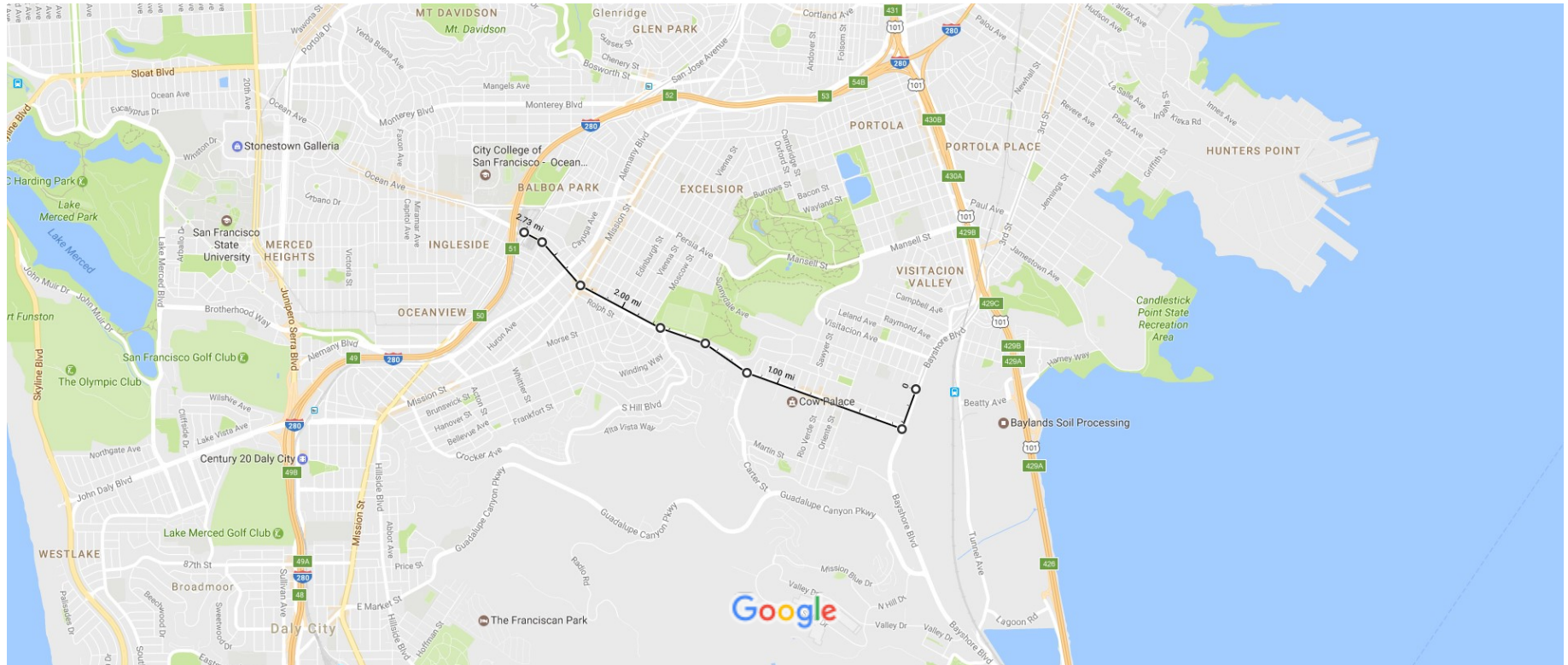
Tax Uber/Lyft and development to pay for it...

ag D11

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I-Goodman (2)

Google Maps T Line Muni Extension to Balboa Park Station

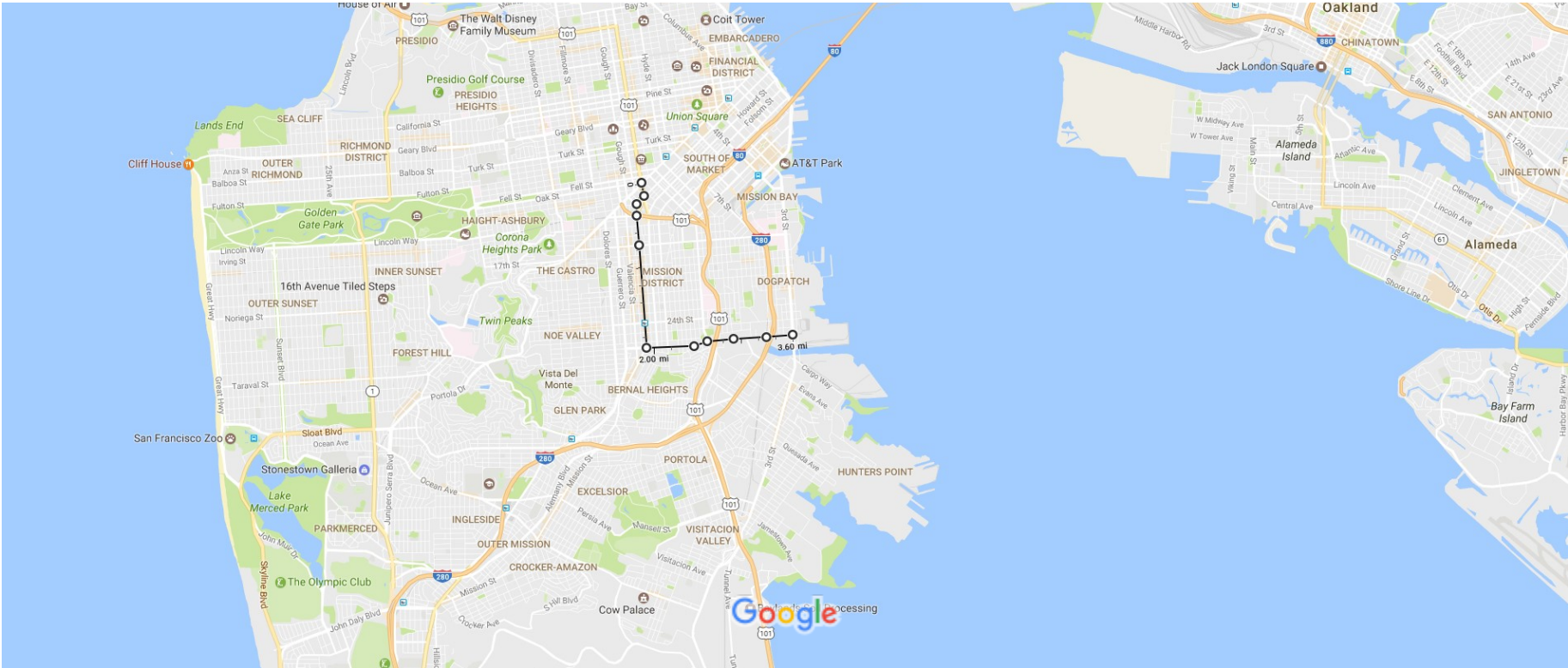


Map data ©2017 Google 2000 ft

Measure distance
Total distance: 2.73 mi (4.39 km)

I-Goodman (2)

Google Maps T/F Line Van Ness Sub-Route



Map data ©2017 Google 1 mi

Measure distance
Total distance: 3.60 mi (5.79 km)

SUE C. HESTOR

Attorney at Law

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office (415) 362-2778 cell (415) 846-1021

hestor@earthlink.net

September 9, 2019

Lisa Gibson
Elizabeth White
1650 Mission 4th fl
San Francisco CA 94103

Comments on Draft EIR 2015-000940ENV The Hub Plan 2017-008051ENV 30 Van Ness 2016-014802ENV 98 Franklin

The Hub planning area has been subject of 2 previous Area Plans developed with extremely different assumptions from now in 2019. The Hub Plan and consideration of these project must understand those assumptions.

Downtown Plan was adopted in **1985** after several years of planning and extensive community involvement. The DTP changed the ZONING south of Market St from **industrial** to various C-3 districts. Both sides of Mission Street and the blocks south to King were zoned industrial. C-3-O expanded south of Market St to C-3-0(SD) to include New Montgomery and 2nd. C-3-G area east of Van Ness/SVN allowed other uses, but was basically light industrial uses, non-profits, wholesale, small scale businesses. Not office or market rate housing. **1650 and 1660 Mission**, and area surrounding was zoned industrial.

DTP zoning added space for new offices, but Planning Code required that projects helped fund construction of **new housing** for the **expanded work force**. In 1985 existing housing in SF was available and basically affordable to existing SF workforce. **BART** opened in 1984 and had its own stream of funding. **Muni** had developed a bus network that moved people to downtown. **Muni Metro** was under construction. DTP assumed to have dramatic shift away from Bay Bridge auto commuters onto transit. Caltrain, SamTrans, GG Transit, BART provided transit to workers who wanted to live outside SF.

Due intense public pressure Supervisors required commercial developers to fund new housing with goal of being available when new office building opened. Transit fees would go to MUNI to expand/maintain service. **Redevelopment** areas fronted the waterfront along Embarcadero Freeway. Those areas were required to build a significant portion of affordable and work force housing.

After **1989** Loma Prieta earthquake the Embarcadero Freeway came down and freeway connections in Market Octavia bordering the Hub, changed dramatically.

When Market Octavia Plan passed in **2008**, SF and US were in recession. Market Octavia and Eastern Neighborhoods area plans provided for extensive new housing. But housing prices had not yet soared out of reach of average SF worker.

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I-Hestor (2)

Tech boom in Silicon Valley and south of Market began occurring **AFTER adoption of M/O and EN Area plans**. Two changes from tech boom had significant effects on **housing** and **transportation circulation** affecting Hub Area.

San Mateo and Santa Clara tech businesses began running **private buses** into San Francisco to connect their workers to San Francisco housing. Dumping the demand for housing from SILICON VALLEY businesses ONTO SAN FRANCISCO. Neither county had built housing commensurate with demand for housing for tech business workers. Unlike San Francisco which for 3 decades had been requiring developers of new commercial space to pay fees to develop additional affordable housing. Since the tech work force was generally well paid, often while waiting for their IPO, they were able to out-bid many SF workers. *Who now could not afford housing in the City where they worked.*

Second - **tech business developed Apps - AND TESTED THEM INTENSIVELY IN SF**. **Short term rentals (Airbnb** -headquartered south of Market) took over housing units and eliminated housing for SF workers. Transportation Network Companies/TNCs - with national headquarters in upper Market and Mission - exploded. They poured unregulated vehicles (with drivers unfamiliar with SF) onto City streets. PARTICULARLY "downtown" and in The Hub area.

In addition to Silicon Valley tech buses, Apps for **private bus systems** operated in SF competing for passengers with Muni. Lyft and Uber, also competing for passengers, clog the streets, slowing down Muni. *All these vehicles pour onto SF streets, particularly in Hub area.*

New, increasingly upper income, residents now get almost everything delivered to their homes. Trucks and private vehicles stopping "in front of door." Often using heavily travelled streets with MUNI lines trying to move rapidly down same street. Meals. Groceries. Toilet paper. Everything. The volume of traffic - on sidewalks, in trucks, on scooters, on bikes - to DELIVER goods to an INDIVIDUAL DWELLING - has exploded. The level of that delivery traffic is changing - and will keep changing even after this EIR is certified.

And the workers for all the Apps and TNCs need housing - at lower income levels.

Neither the Downtown Plan, Market-Octavia Plan, Eastern Neighborhoods Plan contemplated - or had planned for - the current shortage of workforce housing or street congestion - for The Hub area.

Cost of housing for SF workforce directly affects ENVIRONMENT

When the Downtown Plan was developed, even when Market/Octavia and Eastern Neighborhoods Area Plans were adopted, each Plan assumed the SF workforce would be able to afford to live in the City. They could take Muni, walk or bike to work. DEIR 1-4 pontificates that focus of CEQA is on physical environmental effects - not on *social and economic effects*.

Conditions for SF housing have deteriorated rapidly in the past 15 years. Existing housing is taken off the market by short term rentals, owner move-ins and other ways that removes rental

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I-Hestor (2)

housing. As Silicon Valley dumps its workers, and as the new SF, often tech, work force pushes up prices for housing.

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Hotel workers, workers in tourist industry, retail workers, App delivery people are forced out of San Francisco, many to areas without developed transit systems, just to find housing they can afford. **SPRAWL** - even if worker drives dozens of miles to a BART station, then takes transit into SF - has *physical environmental effects* throughout the region as housing pushes out.

6

Drivers for Lyft and Uber DRIVE THEIR CARS INTO SAN FRANCISCO and spend their entire time driving around on City streets. Increasing air pollution and congestion. Other vehicles are delayed and themselves increase air pollution.

Greatly expanding affordability level of new housing, reduces environmental harm by allowing increased portion of SF workforce to live and work in San Francisco.

Bus stop improvements

Figure 2-2 shows areas where pedestrian improvements are planned. These areas have few bus lines and bus stops. They are away from area where most riders get on/off buses.

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Pedestrian improvements, including lighting so that crosswalks are clearly illuminated so drivers can see people crossing the street, are important to safety as well as encouraging people to walk down the street.

Muni system going thru The Hub

The existing public transit lines **in the Hub area** is shown in **Fig 3.B-3**. It is important to see how lines *passing thru* the Hub connect to the rest of SF. Where disruptions IN THE HUB AREA could affect Muni service for the REST OF THE CITY. Please provide a map showing the full route of each public transit lines - at least in San Francisco - so that the full effect *on entire City* of congestion on the lines coming through The Hub can be understood.

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If public transit lines go outside of the City, they could be shown separately.

Newspaper articles have shown drop off in Muni bus ridership on Van Ness in the past few years. The length of time for street construction and work to improve Van Ness Muni has been **part** of the problem.

9

Uber/Lyft blackout zone

Please describe "blackout zone" imposed by City around Chase Center/ arena north of 16th St at 3rd put in place for events 9/6/19 and discussed with maps in the Examiner. The SFMTA created a SIGNIFICANT blackout area where ride-hails were explicitly prohibited from pickups and dropoffs. The area was also clearly signed and enforced. Please describe such a strict limitation for Van Ness and Market area.

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Uber supposedly also created a digital no-pickup zone "geofence" for 2 block area around Chase Center.

Uber and Lyft vehicles are notorious for stopping wherever they wish and ignoring traffic laws. Stop in traffic lanes, with doors opening on traffic side of vehicle, making illegal u-turns in the middle of block. Driving down streets (e.g. Market) where non-taxis are prohibited. Slowing down Muni and traffic.

Muni service for the public should not have to compete with interference by TNCs. Van Ness should be geo-fenced and prohibited to TNCs.

The confluence of transit on Market, Van Ness and other surface streets, makes it even more imperative that transit flow freely in this area.

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cont'd

Enforcement funding of traffic controls

Vehicles block intersections throughout the Hub area, interfering with pedestrians, Muni, bicycles and other cars. As thousands of new units are built in this area, the potential for congestion to ripple throughout SF is substantial.

Permanently assigned traffic control officers, with authority to issue tickets, and strong whistles to take control of traffic, are needed. Project approvals must be tied to on-going funding for enforcement + monitoring to ensure that people operate for years to come.

Mechanisms to ensure on-going payment for ENFORCEMENT - reporting annually in Budget process - defined with specificity to THIS area - to protect rapid movement of public transit and bicycles, safe movement of pedestrians on sidewalks and in crosswalks.

11

On-going reporting back

When the Downtown Plan was passed in 1985, the assumptions IN THAT PLAN that new office workers would transition from driving cars to taking transit resulted in Code reporting requirement still in effect. The Hub proposes a massive amount of new housing - most of which will be high-cost housing in expensive towers. Monitoring traffic congestion, transit usage, air quality, volume of deliveries to buildings/condos, must be required. With regular reports REQUIRED to Planning Commission and BOS so that corrective measures can be adopted.

12

Assessor should be required to automatically report sales prices for condos to Planning Department on an on-going basis so that information of cost of housing available. Recent Chronicle article on Panopoly of Penthouses describes units costing \$40-49 million sitting waiting for buyers for years.

13

The Hub proposes to zone Market and Van Ness with condo heights of 450 feet, 520 feet, 650 feet, 590 feet. A lot of potentially empty floors.

Hub area has extremely high winds. Monitoring effects of construction of new buildings has been hit or miss since I forced issue on 10th & Market EIR done by OER for Redevelopment Agency. I brought up again on 50 Van Ness EIR. Env Review should act to get model - which can be updated with each new building - in its control. Required mitigation measure on EVERY building, funding to update model.

14

I-Hestor (2)

French American School - 98 Franklin Street

Construction of a new private high school, presents a unique opportunity, to this area. Particularly one which has K-8 school on other side of Hub boundary where its students are HEAVILY driven to school and picked up every day. Worsening congestion and air pollution. And climate change.

15

Global warming is not an abstraction for young people. They will live with the consequences of congestion and air pollution causing climate change. Greta Thunberg from Sweden is not the only young person concerned about global warming. And challenging people to take measures to drastically reduce things that warm the planet. Young people and others concerned about global warming - and its effects on SF, sea level rise, and a changing climate.

Mitigation measures for approval of 98 Franklin - and other buildings in The Hub - should include education of new residents and occupants of the impacts on congestion IN THAT IMMEDIATE AREA, air quality, effects on public transit, on bicyclists, and the need to change behavior. To enable construction of thousands of new housing units, and a school, without serious environmental consequences.

16

In the case of the school, the students should be encouraged to get to and from school by walking, bicycling, taking Muni. They should be educated on the effect of private autos delivering and picking up students to school, worsen congestion as well as deteriorate air quality. So that they can educate others. How they get to and from school will have an effect on the environment and slowing down the rate of global warming.

17

Submitted,

Sue C. Hestor

From: [Mary Miles](#)
To: [CPC.HubPlanEIR](#)
Subject: RE: REQUEST FOR COPY OF DEIR ON HUB
Date: Wednesday, July 31, 2019 12:50:05 PM

Dear Ms. White:
Thanks again for getting the DEIR hard copy to me.
Sincerely,
Mary Miles

From: CPC.HubPlanEIR [mailto:CPC.HubPlanEIR@sfgov.org]
Sent: Tuesday, July 30, 2019 4:01 PM
To: Mary Miles <page364@earthlink.net>; CPC.HubPlanEIR <CPC.HubPlanEIR@sfgov.org>
Subject: RE: REQUEST FOR COPY OF DEIR ON HUB

Hi Ms. Miles,
A hardcopy will be in your mailbox tomorrow.
Thank you,

Elizabeth White, Senior Environmental Planner
Environmental Planning Division
San Francisco Planning Department
1650 Mission Street, Suite 400 San Francisco, CA 94103
Direct: 415.575.6813 | www.sfplanning.org
[San Francisco Property Information Map](#)

From: Mary Miles <page364@earthlink.net>
Sent: Friday, July 26, 2019 5:40 AM
To: CPC.HubPlanEIR <CPC.HubPlanEIR@sfgov.org>
Subject: REQUEST FOR COPY OF DEIR ON HUB

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

FROM:
Mary Miles
Attorney at Law
364 Page St., #36
San Francisco, CA 94102
(415) 863-2310
TO:
Elizabeth White
San Francisco Planning Department Environmental Planning
1650 Mission Street, Suite 400
San Francisco, CA 94103
(415) 575-6813
CPC.HubPlanEIR@sfgov.org
RE: REQUEST FOR COPY OF DEIR

Dear Ms. White:
I request a hard copy of the Hub Draft Environmental Impact Report. Please send the copy to me at my above return address.
Thanks for your assistance.
Sincerely,
Mary Miles

From: [Marvis Phillips](#)
To: [CPC.HubPlanEIR](#)
Subject: Getting a copy of DEIR
Date: Thursday, July 25, 2019 1:09:53 AM

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Dear Planning,

My iPad doesn't have the space to download documents like DEIR's so you you snail mail a copy to: Marvis J. Phillips, Board Chair, District 6 Community Planners, 230 Eddy Street, #1206, San Francisco, Ca 94102-6526, thank you.

1

Sincerely,

Marvis J. Phillips
Board Chair
District 6 Community Planners

--

Marvis J. Phillips
Board Chair
District 6 Community Planners

I-Scocchera

From: [Alexander, Christy \(CPC\)](#)
To: [Scocchera, Richard \(HSA\)](#); [White, Elizabeth \(CPC\)](#)
Cc: [CPC.HubPlanEIR](#)
Subject: RE: Opposition to Proposed 98 Franklin Street Project
Date: Monday, August 26, 2019 4:51:17 PM

Hi Richard,

This item is on the agenda this week and you can find the agenda posted here

http://commissions.sfplanning.org/cpcpackets/20190829_cal.pdf

The meeting starts officially at 1 pm and I'm not sure how long the items before will take so I'd say you're safe to wait until at least 2 pm. You can always watch the meeting online and walk over when the item two before this one begins.

Thanks,

Christy

**Christy J. Alexander, AICP, Senior Planner
Northeast Team, Current Planning Division**

San Francisco Planning Department
1650 Mission Street, Suite 400, San Francisco, CA 94103
Direct: 415.575.8724 | www.sfplanning.org
[San Francisco Property Information Map](#)

From: Scocchera, Richard (HSA) <richard.scocchera@sfgov.org>
Sent: Monday, August 26, 2019 9:20 AM
To: White, Elizabeth (CPC) <elizabeth.white@sfgov.org>
Cc: Alexander, Christy (CPC) <christy.alexander@sfgov.org>; [CPC.HubPlanEIR](#)
<CPC.HubPlanEIR@sfgov.org>
Subject: RE: Opposition to Proposed 98 Franklin Street Project
Importance: High

Ms. White and Ms. Alexander,

Can you verify that the public hearing for this project is Thursday 8/29/2019?

Is there a specific time?

The flyer says that it will be some time after 10:00 a.m., which is very vague.

Is there any chance that this hearing will be postponed, or will it definitely be held on Thursday?

Thank you.

Richard J. Scocchera

Legal Process Clerk

City and County of San Francisco

Office of the Public Administrator/Public Guardian

1650 Mission St. 4th Floor

San Francisco, CA 94103

richard.scocchera@sfgov.org

Tel: (415) 355-3525 (x53525)

Fax: (415) 355-3539

From: White, Elizabeth (CPC)
Sent: Tuesday, July 30, 2019 2:55 PM
To: Scocchera, Richard (HSA)
Cc: Alexander, Christy (CPC); [CPC.HubPlanEIR](#)
Subject: RE: Opposition to Proposed 98 Franklin Street Project

Hi Mr. Scocchera,

I am confirming receipt of your comments on the Draft Environmental Impact Report (EIR) for the

1

I-Scocchera

Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District.

Thank you,

Elizabeth White, Senior Environmental Planner
Environmental Planning Division

San Francisco Planning Department
1650 Mission Street, Suite 400 San Francisco, CA 94103
Direct: 415.575.6813 | www.sfplanning.org
[San Francisco Property Information Map](#)

From: Scocchera, Richard (HSA) <richard.scocchera@sfgov.org>

Sent: Tuesday, July 30, 2019 2:46 PM

To: White, Elizabeth (CPC) <elizabeth.white@sfgov.org>

Cc: Alexander, Christy (CPC) <christy.alexander@sfgov.org>

Subject: Opposition to Proposed 98 Franklin Street Project

Hello, Ms. White.

My name is Richard Scocchera, and I have lived at 150 Franklin Street for approximately twenty-five years.

I work for the San Francisco HSA DAAS Legal Department.

Until I recently received a letter in my mailbox from the Planning Department, I was unaware of the huge project planned to be built next to my building.

I am strongly opposed to a massive, nearly 40 story building being constructed next to a four story apartment building.

There is nothing near this size on this block.

I don't see how such an inappropriate project can be approved.

My office is at 1650 Mission Street, which is very close to my apartment, so I walk to work.

There is and has been constant construction on every block between my apartment and my office, making it more and more difficult to walk even a few blocks.

Construction of 24 Franklin Street, approximately one block from my building went on for a long period, constantly blocking the sidewalk there.

At least that building is about the same height as the old building next to it, although it is extremely close to it and now blocks the windows and views of the people in that older building.

Currently, the massive construction projects around South Van Ness & Mission, where I understand your Planning Department will soon be housed, and newly begun project at 12th Street & Otis St., are constantly blocking the streets and sidewalks.

Worse are the health effects of these ubiquitous and constant construction projects. Recently, I have been suffering from respiratory and throat problems, hearing loss, and constant headaches.

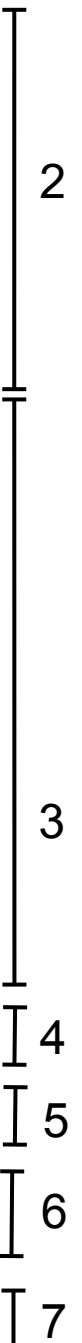
I first noticed these problems when walking by these construction sites a few times a day. The noise is unbelievable. There have been tremendous amounts of dust in the air. I have no idea what the dust contains.

Many old buildings were demolished, which probably contained toxic substances. This stuff is in the air all over this area. The height of these buildings is creating wind tunnels.

Are these construction sites monitored for dispersing toxic dust into the air? I have never seen any City personnel checking.

The idea that there will be more huge construction sites right next to my home is a major attack on the quality of life for the long time residents who actually live and work here full time and have done so all or most of our lives.

I am thinking of the possibility of the effect of an earthquake if there is a forty story monstrosity next



I-Scocchera

to a four story hundred year old building. What about the effects of wind, ventilation, and sunlight on our building? More and more cars and traffic on this block?

Isn't it the job of the Planning Department to realize that construction in this area is extremely excessive?

Or is every single building no matter how large, out of place, and detrimental to the current residents approved automatically?

How can this many large construction projects in a small area of a few square blocks be allowed to be done simultaneously?

Can you imagine what it's like to live in the middle of a gigantic, filthy, deafening, and dangerous construction site everyday with no end in sight?

If you approve this horrible project, then you obviously can't. Or you don't care. Because it seems like the rich can do whatever they want wherever they want whenever they want in this City.

By the way, is this still a City, or is it a tax haven and luxury resort for the 1%?

I am also strongly opposed to our public tax money spent to solely benefit an elite private school. For example, there is mention of "streetscape improvements such as midblock crossing."

Wealthy developers and property owners always seem to find ways to get public tax dollars to pay for things that benefit them and increase their property values.

Aren't these the same very wealthy people and corporations that are not paying any taxes, or certainly not their fair share compared to working class people, who are bearing the tax burden?

Our hard earned tax dollars subsidize entertainment for the elites: ballet, symphony, and opera, while people do not have anywhere to live and do not get medical care they desperately need.

This project and the others nearby serve the purposes of gentrification, which is intrinsically racist and classist. This French school and other extremely expensive schools nearby are reminiscent of old fashioned European colonialism.

Are we going to hear the same old lies about "affordable housing units?"

These projects are for the richest people on earth. Period.

This project next to 150 Franklin Street is absolutely detrimental and disruptive to those of us who are long term San Franciscans and must be rejected.

Thank you.

Sincerely,

Richard J. Scocchera

Legal Process Clerk

City and County of San Francisco

Office of the Public Administrator/Public Guardian

1650 Mission St. 4th Floor

San Francisco, CA 94103

richard.scocchera@sfgov.org

Tel: (415) 355-3525 (x53525)

Fax: (415) 355-3539

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cont'd
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**ATTACHMENT B: DRAFT EIR PUBLIC HEARING
TRANSCRIPT**

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SAN FRANCISCO
PLANNING COMMISSION

NOTICE OF HEARING
&
AGENDA

Commission Chambers, Room 400
City Hall, 1 Dr. Carlton B. Goodlet Place
San Francisco, CA 94102-4689

CASE NO. 2015-000940ENV, 2017-008051ENV,
2016-014802ENV

THE HUB PLAN,
30 VAN NESS AVENUE PROJECT,
98 FRANKLIN STREET PROJECT, AND
HUB HOUSING SUSTAINABILITY DISTRICT

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Thursday, August 29, 2019
1:00 p.m.

Reported by:

ALYSSA MARCUM, CSR #14147

JAN BROWN & ASSOCIATES
WORLDWIDE DEPOSITION & VIDEOGRAPHY SERVICES
701 Battery Street, 3rd Floor, San Francisco, CA 94111
(415) 981-3498 or (800) 522-7096

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APPEARANCES

COMMISSIONERS

Myrna Melgar, President

Joel Koppel, Vice President

Frank Fung, Rich Hillis, Milicent Johnson,

Kathrin Moore, Dennis Richards

COMMISSION SECRETARY

Jonas Ionin

--oOo--

SAN FRANCISCO PLANNING COMMISSION - August 29, 2019

1 THURSDAY, AUGUST 29, 2019, 3:39 p.m.

2 MR. IONIN: Item 11, active upon
3 Case No. 2015-000940ENV, 2017-008051ENV, and
4 2016-014802ENV. This is The Hub Plan, 30 Van Ness
5 Avenue Project, 98 Franklin Street Project, and Hub
6 Housing Sustainability District. This is the Draft
7 Environmental Impact Report.

8 MS. WHITE: Hi. Good afternoon,
9 President Melgar and members of the commission.

10 I am Elizabeth White, Planning Department
11 Staff. The item before you relates to the Draft
12 Environmental Impact Report -- or Draft EIR -- for the
13 Hub Plan, 30 Van Ness Avenue Project, 98 Franklin
14 Street Project, and Hub Housing Sustainability
15 District.

16 The purpose of today's hearing is to take
17 public comments on the adequacy, accuracy, and
18 completeness of the Draft EIR pursuant to the
19 California Environmental Quality Act -- or CEQA -- and
20 San Francisco's local procedures for implementing
21 CEQA. No approval action on this document is
22 requested at this time.

23 I am joined today by Tania Sheyner,
24 Principle Environmental Planner, and Lily Langlois,
25 Principle Planner with our citywide division. The

1 team would, also, like to acknowledge the
2 contributions of Alana Callagy, who is currently on
3 maternity leave.

4 This Draft EIR contains both programmatic
5 and project-level analysis. The Draft EIR analyzes
6 The Hub Plan and its designation as a Housing
7 Sustainability District on a programmatic level.
8 Additionally, the Draft EIR analyzes two individual
9 development projects, 30 Van Ness and 98 Franklin
10 Street, as well as various street-scape improvements
11 on a project-specific level.

12 The proposed Hub Plan would amend the
13 2008 Market & Octavia Plan of the San Francisco
14 General Plan. This amendment would rezone portions of
15 an, approximately, 84-acre area located in the
16 easternmost portions of the Market & Octavia Area
17 Plan. This amendment involves changes to zoning
18 districts, as well as changes to the Heights and Bolt
19 Districts at 18 sites within this area. The Hub Plan
20 Area would, also, be designated as a Housing
21 Sustainability District, in which eligible projects
22 could obtain ministerial approval.

23 As a point of clarification, I will,
24 briefly, describe the Draft EIR's housing and draft
25 projections, per existing conditions, as well as for

1 future conditions that could result from the proposed
2 project.

3 Currently, 3,500 housing units exist
4 throughout The Hub Plan Area. The proposed up-zoning
5 of the 18 sites in the area has the potential to
6 result in a net addition of, approximately, 7,050
7 housing units. For the purpose of environmental
8 analysis, the Planning Department added a 15 percent
9 buffer to this. This buffer was added to acknowledge
10 future development that may occur within the planning
11 area due to various density-bonus programs.

12 The addition of this buffer results in a
13 total of 8,100 housing units. Thus the anticipated
14 development potential under the proposed Hub Plan,
15 accounting for existing and future housing units, is,
16 approximately, 11,600 dwelling units. It is noted
17 that under the current zoning, the maximum potential
18 development is, approximately, 9,300 dwelling units.

19 In terms of jobs, it is anticipated that
20 The Hub Plan would result in slight increase in jobs
21 overall with a net addition of 275 jobs throughout The
22 Plan Area. These numbers are the bases for what is
23 analyzed in the Draft EIR as the project. These
24 numbers do not represent the total-development
25 capacity within the entire Hub Area since up-zoning is

1 proposed only for the 18 opportunity sites.

2 It is important to note that sites in
3 The Hub Plan Area that are not proposed to be up zoned
4 could be developed up to the maximum height limits
5 over time. This existing zoning was already studied
6 as part of the Market & Octavia Plan process.

7 The Hub Plan, also, includes improvements
8 to streets, alleys, and sidewalks within and adjacent
9 to The Hub Plan Area. These improvements include, but
10 are not limited to, sidewalk widening, streetlight
11 upgrades, median realignment, and road and vehicular
12 parking reconfiguration.

13 I will now, briefly, discuss the two
14 individual projects studied in this Draft EIR. The
15 proposed project at 30 Van Ness Avenue includes
16 retention of portions of the existing 75-foot tall,
17 5-story building and construction of a 45-story
18 building. This building would include, approximately,
19 21,000 square feet of ground floor retail space,
20 11 floors or, approximately, 350,000 square feet of
21 office space, and, approximately, 33 floors of
22 residential space for up to 610 dwelling units. The
23 30 Van Ness Avenue site would, also, include,
24 approximately, 240 vehicular parking spaces,
25 approximately, 350 bicycle spaces, and, approximately,

1 33,000 square feet of open space.

2 The proposed project at 98 Franklin Street
3 includes demolition of the existing 100-space surface
4 vehicular parking lot and construction of a 31-story
5 residential tower above a 5-story podium that would be
6 occupied by the International High School. The
7 project would contain, approximately, 350 dwelling
8 units, approximately, 81,000 square feet of
9 institutional space, and, approximately, 34,000 square
10 feet of open space. The 98 Franklin Street site
11 would, also, include, approximately, 110 vehicular
12 parking spaces and, approximately, 540 bicycle spaces.

13 The Draft EIR studied seven alternatives,
14 including three alternatives to The Hub Plan and two
15 alternatives to each of the individual development
16 projects.

17 Alternative A evaluated a no-project
18 alternative, in which The Hub Plan Area would be built
19 out according to existing zoning limits.

20 Alternative B evaluated just the land-use
21 component of The Hub Plan and did not evaluate the
22 proposed street scape and street network improvements.

23 Alternative C evaluated a reduced intensity
24 build-out of The Hub Plan with 7,800 new residential
25 units.

1 Alternative D evaluated a no-project
2 alternative at 30 Van Ness Avenue.

3 Alternative E evaluated a reduced-intensity
4 alternative at 30 Van Ness Avenue. This
5 reduced-intensity alternative would include
6 construction of an, approximately, 11-story building.

7 Alternative F evaluated a no-project
8 alternative at 98 Franklin Street, assuming it would
9 continue to operate as a service parking lot.

10 Alternative G evaluated a reduced-intensity
11 alternative at 98 Franklin Street, which would provide
12 47 residential units in a 5-story tower.

13 The Draft EIR concluded that the proposed
14 project would result in various significant plan
15 level, project level, and cumulative impacts.

16 This slide indicates the significant and
17 unavoidable impacts of the different project
18 components. Other significant impacts that would be
19 reduced to a less-than-significant level with
20 mitigation measures are discussed in the Draft EIR.

21 Today comments should be directed towards
22 adequacy and accuracy of this information contained in
23 the EIR. Staff is not here to answer questions today,
24 but comments made here will be transcribed and
25 responded to in writing in the Responses to Comments

1 document. This document will respond to all verbal
2 and written comments received and make revisions to
3 the Draft EIR as appropriate.

4 Those who are interested in commenting on
5 the Draft EIR may submit their comments in writing by
6 e-mail to cvc.hubplaneir@sfgov.org or postmarked to my
7 attention at 1650 Mission Street, Suite 400,
8 San Francisco, by September 9th.

9 As previously mentioned, the Planning
10 Department will prepare a Response to Comments
11 document, which will contain our responses to all
12 relative comments on the Draft EIR heard today and
13 sent in writing to the Planning Department. Again,
14 comments on the Draft EIR must be received by
15 5:00 p.m. on September 9th.

16 Unless the commissioners have questions, I
17 would respectfully suggest that the public hearing on
18 this item be opened.

19 M. MELGAR: Thank you.

20 Do we have any public comments on this
21 item?

22 I have one speaker card -- there you are.

23 D. NEWELL: Hi. Thank you, Commissioners.

24 Good afternoon. My name is Darren Newell,
25 and I am a campaign coordinator here on behalf of the

1 San Francisco Bicycle Coalition. I'm happy to be here
2 to provide support on behalf of our 10,000 members for
3 the Market & Octavia planned amendment, also known as
4 the Hub; especially as this relates to transportation
5 and bike safety. With the plans that are -- that have
6 been presented about the increasing density for
7 residential units to the nearly 11,000 spaces, we
8 greatly appreciate the incorporated designs for new
9 bike ways on 13th Street and Duboce Avenue between
10 Valencia and Folsom Streets, as well as the improved
11 signal timing that's in the plans that'll be taking
12 place for Otis, Mission, Duboce, and 13th Street
13 intersections.

14 In addition to the bicycle infrastructure
15 and improvements, we've been engaging with the
16 30 Van Ness team for over a year now, and we're really
17 pleased to see the project is designed to encourage
18 bicycle and pedestrian commuting. And the fact that
19 they're exceeding the code for provisions of bicycle
20 parking, including plans for facilities alongside the
21 Van Ness, Fell, and Market Streets, are really big
22 steps towards making progress towards our mode-share
23 goals.

24 So we see The Hub Plan as proposed in the
25 Draft Environmental Impact Report to be expanding --

1 existing the bicycle network in a meaningful way, and
2 would help us move towards a goal of a safe bike-able
3 neighborhood.

4 We see that the plan is adequate and
5 complete, and it's an important milestone to moving
6 this project forward.

7 So I want to thank the Planning Staff for
8 their hard work on this project, as well as their
9 community partners for working with us on the bicycle
10 elements of the plan.

11 Thank you.

12 M. MELGAR: Next speaker, please.

13 C. KENADY: Good afternoon,
14 President Melgar and Planning Commissioners.

15 I'm Carolyn Kenady from the Dolores Heights
16 Improvement Club. I oppose the up-zoning of the
17 Market and Van Ness Hub Plan Area as it stands today
18 owing to the impact that it will have on our already
19 overburdened transit system.

20 The Environmental Impact Report appears
21 exhaustive, but the EIR missed the impacts of transit
22 underground. We need to dig into what's going on in
23 the Market Street tunnel before this goes forward.

24 Here's the current state of MUNI for riders
25 under Van Ness and Market Streets. I commuted to work

O-SFBC-1 cont'd

O-DHIC-1

1 on MUNI Metro until 2017 and still, regularly, ride
2 MUNI. I experience the delays and lack of on-time
3 performance. I'm sure everybody else in this room has
4 been on the MUNI underground and heard, "We're delayed
5 by traffic in the tunnel." And the downtown platform
6 crowds at rush hour, SRO. I fully expect tonight when
7 I leave here, I will be on the platform at Van Ness
8 playing sardines or not able to get onto a train at
9 all. I often walk back from this area of town.

10 And no surprise there, SFMTA's own stats
11 show that the MUNI Metro and the street cars running
12 under the street -- running through the Market Street
13 tunnel have an average weekday ridership 173,500
14 people. That's up 16 percent from 2015. In the past
15 year, these streetcars only have an on-time
16 performance of 41 percent. That's less than half of
17 MUNI's official on-time target of 85 percent. And the
18 chart attached to your handout, shows more detail
19 there.

20 This really worries me. SFMTA is unable to
21 increase capacity and performance to meet even today's
22 demands. Last week, the DHIC -- my board -- gave two
23 SFMTA planners feedback on a project to improve the
24 J Church Line, and they clarified that this short-term
25 project will not address the much larger issue of the

1 MUNI Metro speed and its delays in the Market Street
2 tunnel. They told us the tunnel was not designed to
3 handle it's current passenger loads, that average
4 speeds are lower than prior years owing to the
5 traffic, and, of course, as we all know, the epic
6 system meltdown on April 26 of this year revealed how
7 fragile the tunnel truly is.

8 We asked how -- we asked the planners how
9 SFMTA will fix the tunnel. They told us that a
10 project is on the books but will take 20 to 30 years
11 to complete. So here we are, today San Franciscans
12 are frustrated, angry, and tired by the daily
13 challenges of traffic, congestion, transit delays, and
14 MUNI overcrowding.

15 Do you really want to throw more gasoline
16 on the bonfire by approving 8,000 more units?

17 Please, delay green-lighting the EIR and
18 the Hub and ask the planning staff and/or SFMTA to
19 identify the impacts of the increased population on
20 MUNI Metro and recommend ways to create the additional
21 capacity.

22 Thank you very much.

23 M. MELGAR: Thank you.

24 Next speaker, please.

25 J. HAAS: Commissioners, I'm Jim Haas. I T

O-DHIC-1 cont'd

O-CCCB-1
13

1 live at 100 Van Ness, and I'm on the board of the
2 Civic Center Community Benefits District.

3 I participated through the eight or nine or
4 ten years -- or whatever it took -- to do the Market &
5 Octavia Plan, so I'm well aware of what the existing
6 plan is and the call for multistory high-rise
7 residential buildings on the Market and Van Ness area.

8 I think what is before you enhances what
9 was prepared before, and I am enthusiastic about it as
10 a resident. Although we have quite a significant
11 amount of residential population there now, there
12 still needs to be more to populate various empty
13 stores in the area and to help make the area safe.

14 My only concern is that the EIR does not
15 really mention the Van Ness Market transit station.
16 The -- it appears that the development proposals that
17 have been submitted are not going to try, as private
18 developers, to redo the entrance, which I had hoped
19 they might do; because that would make for much more
20 pleasant access to the station.

21 So I'm hopeful that the -- I think the
22 concrete or stone entranceways there all need to be
23 replaced. They are a very old-style 1970s way of
24 doing it. Public Works, in the past, has worked with
25 BART and replaced those with a fence-like structure,

O-CCCB-1 cont'd

O-CCCB-2

1 which is transparent, makes them safer, and graffiti
2 can't be put on them. So I want to make sure that
3 there's nothing in this EIR that would make doing that
4 require further environmental review.

5 Likewise, the internal part of the station
6 may -- as we go along, needs to be modified to include
7 the entrance and access to the train. And I want to
8 make sure that the EIR covers that or, in no ways,
9 impedes that happening.

10 Otherwise, I think it is an accurate and
11 complete document, and I think the proposed changes in
12 the area would be good for where I live.

13 Thank you.

14 M. MELGAR: Thank you.

15 Next speaker, please.

16 M. BIHN: Good afternoon, President Melgar
17 and Commissioners.

18 I'm Melinda Bihn. I'm head of school at
19 French American International School and International
20 High School here in Hayes Valley. I want to thank the
21 commissioners for their time. I want to thank
22 Planning for their work on the Hub Project, and for a
23 Draft EIR that we believe is adequate and complete.

24 We had some other speakers here today who
25 were going -- parents who were going to speak to their

O-CCCBD-2 cont'd

O-CCCBD-3

O-FAIS-1

O-FAIS-2

1 children's experience. They had to go pick them up
2 from school, so you are left with me.

3 Our school moved to Hayes Valley in 1997 --
4 obviously, a different place at the time -- and we are
5 now part of a vibrant, urban landscape. We can could
6 be the good citizens and neighbors. We have a robust
7 scholarship program for various students. And since
8 moving in in 1997, we've outgrown our original
9 building and developed a number of new facilities,
10 including our arts pavilion at 66 Page and our
11 preschool at 1155 Page. We've always believed that
12 International High School should have it's own home.

13 The school has been hoping to build a new
14 facility since we acquired the site seven years ago,
15 but due to construction costs rising dramatically,
16 they have risen over 50 percent since 2012. That has
17 not been economically capable for our school. The
18 proposed height increase in the Hub makes the project
19 possible for us.

20 The city's decision to try to up-zone the
21 Hub and to create more housing near transit has
22 enabled us to move forward with a mixed-use project,
23 which we think benefits many agencies. We're seeing
24 more and more of our own school families moving in the
25 neighborhood, and we're hopeful that the project

1 completion of two- and three-bedroom homes might
2 support additional families as well.

3 We believe this kind of vertically
4 integrative, mixed-use development, which is the first
5 of its kind in San Francisco, is the future of
6 intelligent land use.

7 We're, also, entirely supportive of meeting
8 the city's affordable housing approval, and we have
9 employees and families who have taken advantage of
10 those programs. With the Draft EIR now extensively
11 studied, and given that costs have continued to rise,
12 we hope the commission will move to certify it as
13 quickly as possible to benefit current and future
14 generations of students and San Franciscans.

15 Thank you.

16 M. MELGAR: Thank you.

17 Next speaker, please.

18 C. SMITH: Good afternoon, Commissioners.

19 Corey Smith on behalf of San Francisco
20 Housing Action Coalition.

21 You know, I saw this really, kind of, crazy
22 tweet from a New York Time's reporter yesterday that
23 says the city of Moscow right now has 21 tunnels being
24 dug out for underground subway stations, and that 80
25 stations have opened since 2010.

O-FAIS-2 cont'd

O-SFHAC-1

1 I mean, we're constantly proposing
2 expanding MUNI and just trying to get more improved
3 MUNI. They've opened 80 stations in a decade, which
4 is just remarkable and -- oh, I only have 30 seconds.

5 As far as The Hub Plan, you know, we are in
6 -- we are in support of it. We're going to be really,
7 really excited about it. And more than anything
8 else -- I know we're going to be a broken record on
9 this.

10 Whatever we can do as an EIR and just try
11 to maximize the number of homes that we study, just to
12 give us more wiggle room in the future, and we think
13 that that's what they've done here. Our office is in
14 smack dab the middle of all this. Our office is a
15 really cool graphic that has been put up that's about
16 all the projects that are happening. So the entire
17 area is going to get transformed, and we're really
18 excited about it and excited to watch it be born.

19 Thank you.

20 M. MELGAR: Thank you, Mr. Smith.

21 Next speaker, please.

22 T. WALBOURN: Commissioners, this is
23 Tess Walbourn from District 5 and housing activist,
24 among other hats.

25 There are a number of significant and

O-SFHAC-1 cont'd

O-SFHAC-2

I-Walbourn-1

1 unavoidable impacts that are built into this plan,
2 and, I think, they're not taken enough into account:
3 Transportation, noise, air quality, and wind.

4 Just on the wind front, having more bike
5 lanes is great, as long as the cyclists are not blown
6 over. I'd, also, like to point out that there's
7 concerns about affordable housing.

8 There's some 3,500 units there now, and
9 demolition of those units -- are they sound units?

10 We would want not to loses those units.
11 15,700 new residents; they if -- if only ten percent
12 of them get a delivery of a meal a day, if only
13 ten percent of them get a package a day -- and I'm
14 talking now about the kinds of impacts that Nema
15 talked about here from Uber and Lyft from package
16 deliveries. We have some numbers available to us
17 about the impacts, and they're not in here yet; and
18 they need to be in the EIR. To have an additional
19 2,000 vehicles pulling up -- we don't have the street
20 space to put that kind of numbers.

21 I think that MUNI was addressed. The
22 aboveground is, also, seriously impacted. This is
23 talking about five years of unavoidable construction
24 impacts on MUNI's travel. That's the E line, 6, 7,
25 probably the 21, and then, of course, on MUNI

1 underground.

2 Particulate matter. The report -- the EIR
3 Draft report talks about only sensitive communities in
4 a very strange way, but fine particulate matter is of
5 a concern to all of us residents and people visiting
6 San Francisco. More needs to be looked at there.

7 I'd, also, like to point you to
8 Alternative C, the most environmentally friendly of
9 the alternatives, as described by the drafters here.

10 So we've got more work to do. Let's make
11 sure that we're not creating an urban ghetto. Let's
12 make sure that this will be a sustainable
13 neighborhood. Trying to squeeze this into the few
14 acres that it is, is a pretty big -- especially in
15 that one location between the freeway and
16 Market Street -- that's asking a lot.

17 Thank you.

18 M. MELGAR: Thank you, Ms. Walbourn.

19 Next speaker, please.

20 O. ROHM: Good afternoon, Commissioners.

21 Ozzie Rohm with The Neighborhood Council in
22 San Francisco, Land Use Coalition.

23 So we're always for intelligent design and
24 intelligent development, but it looks like we're
25 putting the cart before the horse.

I-Walbourn-5 cont'd
I-Walbourn-6
I-Walbourn-7
I-Walbourn-8
O-NC-1

1 So if we're going to be developing some
2 8,000 units adding 50,000 people, where are these
3 people going to be able to get around in the city of
4 San Francisco -- or, actually, some of them might,
5 actually, commute to outside of San Francisco. Our
6 transit system is really maxed out.

O-NC-2

7 Then the problem with this EIR is, as I
8 understand it, that the impact of rideshare has not
9 been reflected in the EIR. So how could you possibly
10 certify it if you do not have an impact -- if you
11 don't have a feel for how many cars are going to be
12 congesting this area. This is a very important area
13 because everything goes through there, especially the
14 lower Haight, Hayes Valley -- incredibly popular. A
15 lot of people either go there that don't, actually,
16 necessarily live there. I'm one of them. I
17 frequently visit lower Haight on foot -- because I
18 love that neighborhood -- and, you know, I couldn't
19 imagine what kind of a disaster it's going to be for
20 the people that are already living there -- not to
21 mention that people aren't now going to be attracted
22 to these towers.

O-NC-3

23 So I urge you not to certify this, unless
24 you have the full report on transportation. People
25 are not going to move in to these buildings and just

O-NC-4

1 sit put. You know, this is just not about housing.
2 This is about housing and how they're going to get
3 around.

4 So, please, do not certify the report,
5 unless you get enough information on transit.

6 Thank you.

7 M. MELGAR: Thank you, Ms. Rohm.

8 Next speaker, please.

9 R. ROLLISON: Good afternoon,
10 Commissioners.

11 I'm Randy Rollison. I'm the Executive
12 Director of Intersection for the Arts.

13 I'm here because we are located right next
14 door to 30 Van Ness at 1446 Market Street, and we're
15 the only building that is directly attached to the
16 project. So we have concerns coming in tying into
17 what construction cost is going to be. But we feel
18 like we're in a really good position right now with
19 the EIR and with our relationship with the developer
20 -- that they're really paying attention and being very
21 sensitive to the construction process and looking at
22 things like our businesses.

23 We're, also, in active conversation with
24 Land Use about the ongoing arts and cultural program
25 in 30 Van Ness and the public spaces that would be

O-NC-4 cont'd

O-IA-1

O-IA-2

1 ongoing rather than ecstatic sculptures and things
 2 like that, so that we can help to pull together -- get
 3 together different elements of the neighborhood and
 4 partnership with other arts and cultural groups and do
 5 some really vital programming for the families and
 6 others that are going to be moving into the area.

7 So we firmly support this project,
 8 30 Van Ness and Market & Octavia amendment.

9 Thank you very much.

10 M. MELGAR: Thank you, sir.

11 Next speaker, please.

12 J. WARSHAW: Hi. I'm Jim Warshaw. I'm a
 13 Hayes Valley resident and long-term supporter of
 14 Market & Octavia.

15 When this was all coming up and everybody
 16 was talking about 400-foot towers, they were like, "Do
 17 you really support that?", and I go, "Yes. I do. We
 18 need to densify. This is the transit hub." And -- so
 19 to much criticism from some people, I was an
 20 aggressive supporter of all of this.

21 You know, I think some of what concerns me
 22 about this, in addition to some technical points and
 23 points raised by the other speakers about the adequacy
 24 of MUNI and other things like that for services, when
 25 the proposal to raise some of the 400-foot towers was

O-1A-2 cont'd

O-1A-3

I-Warshaw-1

I-Warshaw-2

I-Warshaw-3

1 first voiced, it was -- you know, look at the
2 aesthetic of these four 400-foot towers. It's flat.
3 It's boring. They need to do thinner, elegant,
4 beautiful, you know, varied heights, and it's going
5 to, really, look gorgeous. And, you know, we'll get
6 some extra housing out of it -- yeah; sounds good.
7 However, as it's developing now, we have a very
8 different profile.

9 10 South Van Ness is proposing 600 feet.
10 The only group project is 400 feet. 1 Oak is looking
11 to go up to 600 feet. 30 Van Ness is 500 feet. We
12 have a new tower being built just south of Van Ness,
13 and it's 400 feet. We see how big 400 feet really is.
14 600 feet is 50 percent higher than that. It looks
15 like all four corners are going to be 600-foot towers.
16 That's mammoth. That's, also, back to one big blob of
17 everything the same height. So that's something that
18 really concerns me a great deal.

19 In terms of the adequacy of the report,
20 just a couple examples. Page 3B-84, where they're
21 talking about commercial and passenger loading, the
22 conclusion is -- and a quote -- "There is no feasible
23 mitigation to reduce this impact." Well, we know that
24 the TNCs weren't accurately taken into account on
25 that, and they've grown in mushrooms since then. And

I-Warshaw-3 cont'd

I-Warshaw-4

I-Warshaw-5

1 this doesn't even begin to take into account the food
2 delivery services. I've had conversations with some
3 of the sponsors, and they talk about where UPS and
4 FedEx can go in. And they think they've solved the
5 problem with drop-off zones, but this is something
6 that's not even on their radar. So that's a huge
7 concern. We're not even playing catch up. We are
8 more than reactive.

9 When you look at 98 Franklin, they're using
10 a 30 percent drop-off rate. If anybody sees French
11 American's student base, and they think that the same
12 30 percent that applies for all schools applies to
13 French American, you have another thing coming.

14 Thank you.

15 M. MELGAR: Thank you, commissioner
16 Warshaw.

17 Next speaker, please.

18 J. HENDERSON: Good afternoon,
19 Commissioners.

20 My name is Jason Henderson. I've been
21 involved with the Market & Octavia plan for over a
22 decade. Dennis Richards and I were involved in the
23 formation of the plan, and -- so this is an excellent
24 location for housing. However, I want to talk about
25 the adequacy of this document, and I'm going to go by

I-Warshaw-6

I-Henderson-1

1 the page numbers to help you find what I'm talking
2 about.

3 So, first of all, 3B-8 -- this is all from
4 the transportation section. The volumes are
5 excruciatingly detailed, but they rely on the PMP.
6 But the reality is, is that there's a chronic peak.
7 There's a peak all day on all of the streets in this
8 area, both in the Plan Area and outside of the Plan
9 Area. And you miss a lot of nuance when you don't
10 look at the volumes and the warnings; for example, the
11 bike traffic is coming from a different direction.
12 There's a lot of traffic flowing to the boulevard --
13 Octavia Boulevard on Page and Haight that is coming
14 from this area westbound. That's not even in here.

15 Your technical documents say you can look
16 at different peaks, so you should be including that.
17 The VMT threshold, you guys adopted this a few years
18 ago. It's suburban. You're basically capturing --
19 you're allowing suburban mentality. Ask yourselves
20 how far you drive every day, how far you take an Uber
21 every day. Your VMT analysis doesn't even capture
22 TNCs. That's a substantial amount of VMT happening in
23 this city that is not in this document. Your
24 threshold should be one mile. This area is between
25 one mile and three miles per capita, per day; okay.

1 That's fair. Not a Santa Clara VMT threshold. So
2 that's 3B-10 -- that section there.

3 The loading. The statement made about the
4 mitigation of the loading is that there is no feasible
5 mitigation. There's very little analysis of loading.
6 When you look at the technical documents about when
7 you study loading, it's very old school -- like a UPS
8 delivery coming in at 4:00 in the afternoon. Look, we
9 know that there's all kinds of apps and services, and
10 passenger and commercial loading is a huge -- it is
11 going to swarm this area, and the document says there
12 is no feasible mitigation. That's at 3B-46.

13 Travel demand. The travel to the south is
14 underestimated. The document says that it's going to
15 be about three percent. That's crazy. I don't know
16 where that comes from, but it underplays the commuting
17 patterns. I suggest a few mitigations that could be
18 put into this document.

19 Metering. Zurich, Switzerland, the gold
20 standard of transit does metering all around its city
21 to control the flow of traffic. The loading can be
22 dealt with by having a brake-bolt point outside of the
23 area. Empty out the vance, put it on electric cargo
24 bikes. You can geo-fence this area and keep it from
25 being overwhelmed by the TNCs, and the people that

1 live in these areas can walk a few blocks.

2 Thank you.

3 M. MELGAR: Thank you, Mr. Henderson.

4 Next speaker, please.

5 P. PAPADOPOULOS: Good afternoon,
6 Commissioners.

7 Peter Papadopoulos with Mission Economic
8 Developing Agency. And I think as just an overview
9 kind of comment, I do think that -- I just wanted to
10 reiterate, we don't think this is the time to be
11 up-zoning here, and we would like to see this whole
12 project held until the city has an equitable
13 development policy in place that would say, "What are
14 the guidelines here?" and, particularly, in light of
15 the factor here, we're saying we're not able to
16 meaningful value to capture. If that's true, for some
17 reason -- if that's what the reports are saying, then
18 I think we would hold instead of transfer hundreds of
19 millions of dollars being raffled off at the top
20 without getting anything back for our services or our
21 infrastructure, et cetera.

22 I think to look at the a few of the
23 particulars here, I wanted to point out that I do have
24 some concerns. Again, I see, for example, that job
25 numbers -- it seems like 30 Van Ness, we have here

1 240 square feet resulting in 1,460 employees --
2 240 square feet per employee. As we were presented
3 before -- and I'm not sure, kind of, how we are stuck
4 on these high, high numbers -- pretty standard numbers
5 from what we know as Mission Economic Development is
6 about 60 percent of that or about 151 square foot per
7 employee. That's pretty easily findable on the web.
8 You can Google it right now, and there are studies
9 that show it's significantly less, as well as some of
10 the charts, slightly higher. But we take that as a
11 very reasonable average, especially in San Francisco
12 where, as we know, it's not uncommon to walk in and
13 see people sitting at picnic tables everywhere and the
14 numbers are much, much denser. So we'd like to see
15 that corrected throughout the jobs numbers, because we
16 do think jobs are a significant part of this.

17 We had an evaluation, also, that it says we
18 will not exist -- displace any existing residents, but
19 we do think that the creation of this housing study is
20 starting to show what may -- the study, which is
21 preliminary printage coming out any day now --
22 supposedly by late summer -- shows that we should
23 expect a 2-to-17 percent increase of the low-cost
24 rental units surrounding these new housing units, and
25 we'd like to see an evaluation of what level of

O-MEDA-2 cont'd

O-MEDA-3

1 displacement on those existing residents we might see,
 2 particularly because they center around valuation --
 3 there is a sizable amount of our population, along
 4 with, of course, a favorable size of homeless
 5 population in this area.

O-MEDA-3 cont'd

6 We would, also, like to see -- I was not
 7 able to find anything on impacts to potentially --
 8 aiding to the plans the EIR impacts to the existing
 9 homeless population, which is living in some of those
 10 areas that are set to be redesigned.

O-MEDA-4

11 Yeah. So I want to go to just one more
 12 while I have the time. State density bonus is only
 13 allotted, as we heard, for about 15 percent increase,
 14 but I think I'd like to see the data from the Planning
 15 Department integrated. I think we're seeing much
 16 higher-level numbers to be reflected in the report.

O-MEDA-5

17 Thank you.

18 M. MELGAR: Thank you, Mr. Papadopoulos.

19 Next speaker, please.

20 MS. HESTOR: This is probably the 50th
 21 comment.

22 This area really struck me where it's
 23 gobbling up the city. This is tech industry right
 24 here, and there's a lot of projects on this map that
 25 could have been approved that have not been built.

I-Hestor(1)-1

1 1 Oak, right here; 1370 Mission, right there; across
2 the street from the Planning Department, right here.

3 So -- and those projects account for
4 800 units of housing that have already been approved
5 but not built. One of the fantasies we engage in is
6 approving projects build them. That's not really the
7 case.

8 I have a couple comments on this based on
9 -- the Academy of Art is coming to you in a couple
10 weeks. There are nine projects that are major, major
11 -- I will put this map just because -- so you can see
12 what area is being commented on.

13 Van Ness Avenue should not have any private
14 buses approved by the planning commission -- one of
15 them is coming to you for approval in a couple months.
16 The Planning Department has a lot of work to do to
17 fight back -- in this EIR's fight to fighting back.

18 We don't really have a handle on the
19 private-bus system. The Google buses that come right
20 by the Planning Department come right through this
21 area and interfere with traffic. We are spending
22 billions of dollars to reconstruct transit on Van Ness
23 Avenue, and yet we make the transit situation worse by
24 not dealing with Uber and Lyft and everyone who does
25 drop-offs like private buses and don't go to the state

I-Hestor(1)-1 cont'd

I-Hestor(1)-2

1 as a city to say, "We need some relief. We need some
2 policy to be approved." This is a mitigation measure.
3 One of the major mitigation measures is the city
4 getting a handle on controlling TNCs -- Uber and Lyft.

5 Second very, very specific one, I don't
6 understand why the analysis of transit doesn't include
7 the 8 buses. They're not 3B72. There's no 6 and no
8 7. Anyone who's a realist knows that they are major
9 vehicle distributions in this city. The Market &
10 Octavia Plan was -- the Eastern Neighborhoods Plan was
11 done in 2008. The Downtown Plan was done in 1985.

12 I will have a lot of written comments. I
13 hope you do, too.

14 Thank you.

15 M. MELGAR: Thank you. Ms. Hestor.

16 Any other public comment on this item?

17 Okay. Public comment is now closed.

18 Any comments from our fellow commissioners?

19 Okay. I will say I think that several of
20 the speakers said things that I agree with, as to the
21 adequacy of our EIR. This is not enough for me not to
22 move forward with it, but to have our analysis and
23 review keep up with the reality of the world that we
24 live in where there are deliveries, and Uber, and --
25 you know, also, the reality of our disinvestment in

I-Hestor(1)-2 cont'd

I-Hestor(1)-3

I-Hestor(1)-4

1 public transportation, I do take seriously and would
2 like to have an analysis that is supportive based on
3 the public's reality of getting around the city; so
4 that does speak to me.

5 And, you know, while I, also, empathize
6 with wanting to have, you know, an equitable value
7 recaptured of zoning, I'm not sure that, you know, not
8 moving forward with this EIR is the proper strategy
9 for that.

10 Although, you know, it would be nice if we
11 had that kind of power -- but we don't. But, you
12 know, I hear you; so thank you.

13 J. IONIN: If there's no further comment,
14 Commissioners, we can move on to the next item,
15 No. 12.

16 (Agenda item concluded at 4:22 p.m.)
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REPORTER'S CERTIFICATE

I, ALYSSA G. MARCUM, certify:


That the foregoing proceedings were
stenographically reported by me at the time and place
therein set forth and were thereafter transcribed;

That the foregoing is a true and correct
transcript of my shorthand notes so taken.

I further certify that I am not a relative or
employee of any attorney or any of the parties nor
financially interested in the action.

I declare under penalty of perjury under the
laws of California that the foregoing is true and
correct.

Dated this 23rd day of September, 2019.



ALYSSA MARCUM, CSR #14147

**ATTACHMENT C: HISTORIC PRESERVATION
COMMISSION HEARING
TRANSCRIPT**

SAN FRANCISCO
HISTORIC PRESERVATION COMMISSION

Notice of Hearing
&
Agenda

Commission Chambers, Room 400
City Hall, 1 Dr. Carlton B. Goodlett Place
San Francisco, CA 94102-4689

CASE NO. 2015-000940ENV

THE HUB PLAN,
30 VAN NESS AVENUE PROJECT,
98 FRANKLIN STREET PROJECT, AND
HUB HOUSING SUSTAINABILITY DISTRICT

REPORTER'S TRANSCRIPT OF PROCEEDINGS
Wednesday, August 7, 2019
12:30 p.m.
Regular meeting
(Pages 1 - 35)

Reported By:

Mia Camera

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APPEARANCES

HISTORIC PRESERVATION COMMISSION

- Aaron Hyland, President**
- Diane Matsuda, Vice President**
- Jonas Ionin, Commission Secretary**
- Richard Johns**
- Jonathan Pearlman**
- Kate Black**
- John Rahaim**

CITY STAFF & PROJECT TEAM

- Jorgen Cleeman**
- Allison Vanderslice**
- Lily Langlois**
- Erin Efner**

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WENDESDAY, AUGUST 7, 2018, 12:40 P.M.

J. IONIN: Placing us under your Regular Calendar for Item 7., Case No. 2015-000940ENV, for The Hub Plan, the 30 Van Ness Avenue Project, the 98 Franklin Street Project, and the Hub Housing Sustainability District. This is for your review and comment.

J. CLEEMAN: May I have the screen, please?

Good afternoon President Hyland, Members of the Commission. My name is Jorgen Cleeman, and I am the Senior Preservation Planner assigned to the Environmental Impact Report for the Hub Plan, the 30 Van Ness Project, the 98 Franklin District Project, and the Hub Housing Sustainability District.

Joining me today are Allison Vanderslice, CEQA Cultural Resources Team Manager at the Planning Department, Lily Langlois, Principal Planner in the Planning Department City-wide Division, and Erin Efner, Principal at ICF, the consulting firm that prepared the Draft EIR (DEIR).

I would like to note we have a stenographer present to create a transcript of today's proceedings. I would encourage Commissioners and members of the public to speak slowly and clearly in order to assist this process.

1 The public review period for the Hub Project
2 DEIR began on July 25th, 2019, and will end at 5:00 p.m.
3 on September 9th, 2019. The Commission members were
4 provided with links to the Notice of Public Hearing and
5 Notice of Availability of the DEIR as well as to the EIR
6 and it's appendices on July 25th, 2019.

7 Today we are here to provide an opportunity for
8 your Commission to provide its comments on the DEIR to
9 the Planning Commission and the Department. As part of
10 the hearing today you will receive public testimony;
11 however, I would like to remind everyone that comments
12 made by the public at this hearing should be directed to
13 assisting the Commission in formulating its comments on
14 the DEIR and will not be responded to in the Responses
15 to Comments Document.

16 If a member of the public might make a comment
17 on the Draft EIR, please attend the Planning Commission
18 Hearing on Thursday, August 29th, 2019.

19 The San Francisco Planning Department proposes
20 to rezone portions of an area of San Francisco within
21 the boundaries of the downtown Civic Center, South of
22 Market, Western Addition and Mission neighborhoods. The
23 approximately 84-acre area is referred to as The Hub.
24 The Hub Plan would amend the 2008 Market and Octavia
25 Area Plan of the San Francisco General Plan, focusing on

1 the easternmost portions of that plan. The Hub Plan
2 also includes improvements to streets and sidewalks
3 within and adjacent to the Hub Plan Area. The
4 streetscape and street network improvements are analyzed
5 at a project-specific level in the DEIR.

6 Two individual development projects within the
7 Hub Plan Area, 30 Van Ness Avenue, and 98 Franklin
8 Street, are evaluated at a project-specific level and in
9 the DEIR as well.

10 The proposed project at 30 Van Ness Avenue
11 includes retention of portions of the existing 75-foot
12 tall, 5-story building, and construction of a 45-story
13 building with ground-floor retail space, 11 floors of
14 office space, approximately 33 floors of residential
15 space, and vehicular and bicycle parking.

16 The proposed project at 98 Franklin Street
17 includes demolition of the existing surface vehicular
18 parking lot and construction of the 31-story residential
19 tower above a 5-story podium that would be occupied by
20 new facilities for the International High School. The
21 98 Franklin Street site would also include vehicular
22 parking and bicycle spaces.

23 This EIR also evaluates the designation of
24 portions or all of the Hub Plan Area as a Housing
25 Sustainability District, or HSD, in accordance with

1 Assembly Bill 73. Designation of an HSD through
2 adoption of an ordinance by the San Francisco Board of
3 Supervisors would allow the City to exercise streamlined
4 ministerial approval of residential and mixed-use
5 development projects, meeting certain requirements.
6 Qualifying projects would still be required to implement
7 applicable mitigation measures identified in this EIR
8 and would comply with adopted design review standards
9 and all existing City laws and regulations.

10 Projects that qualify under the provisions of
11 the HSD would not be subject to further environmental
12 review. The DEIR finds that the proposed project, even
13 with the implementation of mitigation measures, would
14 result in significant and unavoidable impacts with
15 respect to cultural resources, transportation and
16 circulation, air quality, wind, and shadow.

17 The remainder of this presentation will focus on
18 Historic Architectural Resources. First, I would like
19 to provide a quick summary of Historic Resources located
20 within the Hub Plan Area, which you may recall from the
21 informational session presented to this Commission on
22 July 17th.

23 The Hub Plan Area contains numerous Historic
24 Resources as depicted on the map. The boundaries of the
25 area are shown in red, CEQA Historic Resources are shown

1 in yellow, and Historic Districts are shown in a variety
2 of shades identified in the legend.

3 Several of the individual resources and Historic
4 Districts within the Plan Area are designated under
5 Articles 10 and 11 of the Planning Code. The area also
6 contains Historic Resources that were identified in past
7 adopted surveys that covered all or part of the area,
8 including the Here Today Survey, the Market and Octavia
9 Area Plan Historic Resource Survey, the Automotive
10 Support Structures Survey, the Central Freeway
11 Replacement Project Historic Architecture Survey, and
12 the South of Market Historic Resources Survey. Several
13 additional resources were identified through the CEQA
14 Project Review Process.

15 An additional survey was prepared in conjunction
16 with the Hub Area Plan EIR. This survey, The Hub Plan
17 Historic Resources Survey, or simply The Hub Survey,
18 illustrated on this map, was conducted between 2018 and
19 2019 to develop a comprehensive inventory of all
20 properties within the Hub Plan Area along with
21 California Register of Historical Resources Eligibility
22 Findings.

23 A preliminary analysis of the Hub Plan Area
24 determined that 27 buildings within The Hub Area
25 required new evaluations. This was because either the

1 buildings had not been preselected for intensive level
 2 evaluation in past surveys, were not age-eligible at the
 3 time of past surveys, meaning that they were not yet 45
 4 years old, had designations or evaluations that were
 5 determined not to be sufficient for the purposes of the
 6 survey, or because new information had come to light
 7 indicating potential new areas of significance. And
 8 usually this had to be with either LGBTQ history or
 9 modern architectural history.

10 Of the 27 buildings evaluated, 5 were identified
 11 as Individually Eligible Historic Resources. This
 12 includes the San Francisco Women's Centers at
 13 55-63 Brady Street, the San Francisco Cannabis Buyers'
 14 Club at 1438-1444 Market Street, the Gantner and Mattern
 15 Company Building at 1453 Mission Street, the mirrored,
 16 flat-type residential building at 1618-1624 Howard
 17 Street, and the San Francisco Human Services Agency
 18 Building at 170 Otis Street.

19 The DEIR has identified two significant and
 20 unavoidable impacts with regard to Historic Resources.
 21 The first impact, CUL-1, states that the Hub Plan would
 22 cause -- could cause -- a substantial adverse change in
 23 the significance of Individual Built Environment
 24 Resources and/or Historic Districts. In making this
 25 determination, the DEIR considers that the objectives of

1 The Hub Plan include encouraging new development, which
2 would be by accomplished by introducing changes in
3 existing land controls and zoning to provide greater
4 flexibility and allow land uses in the Hub Plan Area and
5 modify height and bulk limits on 18 specific sites.

6 Of these 18 sites, three contain listed or
7 Eligible Historic Resources: These are 170 Otis Street,
8 an existing 8-story building where the maximum allowable
9 height would be increased from 85 to 150 feet;
10 99 South Van Ness, an existing two-story building where
11 the allowable height would be increased from 120 to
12 250 feet; and 10 South Van Ness, an existing one-story
13 building where the maximum allowable height would be
14 increased from 400 to 590 feet over a portion of the
15 site.

16 Regarding 10 South Van Ness, it should be noted
17 that the environmental impacts of this project are being
18 evaluated separately in a project-level EIR that was
19 reviewed by this Commission and the Planning Commission
20 in 2018. Hearings for the entitlements and the
21 certification of the final EIR for this project have not
22 yet been scheduled.

23 PRESIDENT HYLAND: Excuse me. Could you just
24 repeat those again?

25 J. CLEEMAN: The three buildings?

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PRESIDENT HYLAND: Yes.

J. CLEEMAN: Sure.

PRESIDENT HYLAND: Thank you.

J. CLEEMAN: Okay.

Of the 18 sites where zoning controls and land uses are changing, three contain Listed or Eligible Historic Resources. These are 170 Otis Street, an existing 8-story building where the maximum allowable height would be increased from 85 to 150 feet; 99 South Van Ness, an existing two-story building where the allowable height would be increased from 120 to 250 feet; and 10 South Van Ness, an existing one-story building where the maximum allowable height would be increased from 400 to 590 feet over a portion of the site; and again, 10 South Van Ness has a separate EIR that's been evaluated separately.

In addition to these three sites, it is anticipated that implementation of The Hub Plan would result in an increased development throughout the Hub Plan Area. Although implementation of The Hub Plan would not immediately change the significance of a Historic Resource, for the purposes of the DEIR's analysis, a foreseeable result of zoning-controlled changes proposed under The Hub Plan could be demolition of built Historic Resources or their alteration in an

1 adverse manner.

2 Regarding districts, the DEIR has evaluated
3 potential impacts to all historic districts within or
4 adjacent to the Hub Plan Area and determined that the
5 plan could result in significant impacts to one, the
6 Jessie McCoppin Stephenson Streets Reconstruction
7 Historic District.

8 To address the impact, CUL-1, the Hub Draft EIR
9 includes a number of mitigation measures required for
10 subsequent development projects located on the site of
11 Identified Historic Resources. The first such measure
12 would require sponsors to seek feasible means for
13 avoiding impacts to Historic Resources by designing a
14 project that meets the Secretary of the Interior's
15 Standards for Rehabilitation.

16 If such a project were not feasible, the sponsor
17 would be required to consult with the Planning
18 Department to determine if a feasible project that
19 minimized impacts through the retention of significant
20 architectural elements would be desirable. If avoidance
21 of impacts to Historic Resources is determined to be
22 infeasible, a number of additional mitigation measures
23 would be required, including full documentation, site
24 interpretation, video recordation, and salvage.

25 These mitigations would partially compensate for

1 impacts associated with the development under The Hub
2 Plan; however, because demolition of built environment
3 resources or alteration in an adverse manner could still
4 occur, the impact would remain significant and
5 unavoidable after the application of mitigation.

6 The second significant and unavoidable impact
7 with regard to Cultural Resources, CCUL-1, states that
8 The Hub Plan, in combination with cumulative development
9 projects in the vicinity, would result in demolition
10 and/or alteration of built environment resources. The
11 DEIR also determined that the mitigation measures listed
12 above would not reduce The Hub Plan's contribution to
13 the cumulative impact to a less than considerable level
14 and that the impact would remain significant and
15 unavoidable with mitigation.

16 Other cultural resource impacts were determined
17 to be less than significant, and a few were determined
18 to be less than significant after mitigation. I refer
19 you to the DEIR for the full impact discussion.

20 Department staff and the consultant team
21 identified seven alternatives to The Hub Plan, the Hub
22 HSD, and the individual development projects at
23 30 Van Ness Avenue and 98 Franklin Street. Because the
24 projects at 30 Van Ness Avenue and 98 Franklin Street
25 result in less than significant impacts to Historic

1 Resources as proposed, a discussion of the four
 2 alternatives related to these projects is omitted from
 3 this presentation.

4 The three alternatives to The Hub Plan and Hub
 5 HSD are as follows: Alternative A, The Hub Plan and Hub
 6 HSD Note Project Alternative, which preserves the
 7 existing zoning and heightened-bulk controls in the
 8 Market and Octavia Area Plan and assumes no adoption of
 9 The Hub Plan or Hub HSD; Alternative B, The Hub Plan
 10 Land Use Only -- Land Use Plan Only Alternative -- which
 11 assumes the same policies, planning code and general
 12 plan amendments as with The Hub Plan and HSD, except
 13 that the Alternative would exclude the streetscape and
 14 street network improvements; and Alternative C, The Hub
 15 Plan Reduced Intensity Alternative, which modifies the
 16 building assumptions at the 18 sites identified for
 17 height and bulk increases and requires that all projects
 18 involving Historic Resources conform to the Secretary of
 19 the Interior Standards for Rehabilitation.

20 Alternative A would involve less intensive
 21 development in the Hub Plan Area; however, it is
 22 possible that even absent The Hub Plan and Hub HSD,
 23 Historical Resources could be demolished because
 24 policies under the Market and Octavia plan encourage but
 25 do not require retention of Historic Resources;

1 therefore, the impact of Alternative A on Individual
 2 Built Environment Resources and Historic Districts would
 3 be significant and unavoidable with mitigation, similar
 4 to the Hub Plan although somewhat reduced compared to
 5 the Hub Plan because of less development pressure.

6 Alternative B would involve the same development
 7 sites and intensity as The Hub Plan and Hub HSD but
 8 would not involve streetscape and street network
 9 improvements; however, because streetscape and street
 10 network improvements are not a major contributor to the
 11 impacts associated with implementation of The Hub Plan,
 12 Alternative B would still result in a significant and
 13 unavoidable impact to Historic Resources.

14 Alternative C involves a plan to avoid specific,
 15 identified built environment resources and would require
 16 subsequent development projects located at the site of
 17 Historic Resources to meet the Secretary of the Interior
 18 Standards for Rehabilitation; therefore, impacts to
 19 Historic Resources under Alternative C would be less
 20 than significant.

21 In sum, of the three alternatives to The Hub
 22 Plan that have been identified, only one, Alternative C,
 23 would result in a less than significant impact to
 24 Historic Resources. The DEIR identifies Alternative C
 25 as the environmentally superior alternative that is not

1 also a Note Project Alternative.

2 Before the presentation ends, I would like to
3 remind everyone that a public hearing on the DEIR before
4 the Planning Commission is scheduled for Thursday,
5 August 29th, 2019. Comments on the DEIR must be
6 submitted orally at the Planning Commission hearing or
7 in writing to the Planning Department by 5:00 p.m. on
8 Monday September 9th, 2019 for them to be responded to
9 in the Responses to Comments Section Document.

10 After the Planning Commission hearing, the
11 Planning Department will publish a Responses to Comments
12 Document which will contain the Department's responses
13 to all relevant comments on the DEIR. Publication of
14 the Responses to Comments Document will be followed by a
15 hearing before the Planning Commission where the
16 Planning Commission will consider certification of the
17 final EIR.

18 This ends my presentation. City staff and
19 members of the Project Team are available to answer any
20 questions you may have. Thank you.

21 PRESIDENT HYLAND: Great, great. Thank you.

22 Any questions?

23 J. PEARLMAN: Yeah. I do. I do have a
24 question.

25 PRESIDENT HYLAND: Mr. Pearlman?

1 J. PEARLMAN: Could you put up the slide -- I
2 think it was the third slide that showed the historic --
3 I think it was the next slide. Yeah, that's the one.
4 Okay. So the area -- no, I'm sorry. Go back one where
5 the districts -- the Jessie McCoppin Stephenson District
6 -- okay. I just wanted to be sure where that one.
7 Yeah, okay. Because that's an intense little
8 residential block there, correct?

9 J. CLEEMAN: Correct. Yes.

10 J. PEARLMAN: Okay, thank you.

11 PRESIDENT HYLAND: Just furthers that -- there
12 was a -- a community sponsored proposal of a district in
13 that area, right? And we were talking about expanding
14 that. Is that -- I forget it was the --

15 J. CLEEMAN: I'm not familiar with that
16 proposal. We're not familiar with that proposal.

17 PRESIDENT HYLAND: Anyway, that's okay. Okay.
18 Thank you.

19 Why don't we just open this up to public
20 comment? Any member of the public wish to close address
21 the Commission on this agenda item?

22 Close public comment.

23 Commissioners? Do you have any questions?

24 R. JOHNS: What is it that we are supposed to --
25 that we are being asked to do? That was not clear to

1 me.

2 PRESIDENT HYLAND: That's a good question.

3 Do you want to try to answer that?

4 A. VANDERSLICE: Allison Vanderslice, Department
5 Staff. So this is a Draft EIR on The Hub Area Plan on
6 the two projects and the HSD. So this is review and
7 comment if you have any concerns or questions about the
8 Historic Resources portion of the DEIR. We will take
9 down those comments and then those will be submitted to
10 the Planning Commission prior to their hearing and also
11 to the ERO and then they'll be responded to in the
12 Response to Comments Document.

13 R. JOHNS: Well, in the past, if I recall, when
14 things like this -- Draft EIR's come up, the question
15 comes up if whether or not the Commission thought if
16 there had been a fair analysis of the issues from an
17 historic preservation point of view, and assuming that
18 that be the case, whether or not the alternatives
19 presented reasonably addressed those issues.

20 And, when I looked at this, I looked at it with
21 those questions in mind: Did I do the right thing? Or
22 is this supposed to be some free-for-all? I see a
23 panicked look there.

24 PRESIDENT HYLAND: I think this is a little bit
25 different than a proposed project. This is an area

1 plan.

2 J. RAHAIM: Yeah, I was just going to say that.
3 This is more complicated, perhaps, Commissioners, than
4 the EIR's that you see that are project-specific. This
5 is for an all area plan, but what we're requesting of
6 you is the same.

7 Did we do an appropriate job analyzing the
8 impacts on Historic Resources and do the alternatives
9 represent a broad enough range?

10 R. JOHNS: Okay. That's what I just wanted to
11 be confirmed in that.

12 A. VANDERLSLICE: And also just to follow up on
13 that whether or not the mitigation measures that we
14 looked at were adequate.

15 PRESIDENT HYLAND: And I might have a couple of
16 questions that might help facilitate some conversations.

17 On the mitigations, we have M-call-1A or dash
18 1A, and the way that it was presented in the
19 presentation, that is the primary mitigation, and if
20 that is not achievable, then it goes to A, B, C, or D.

21 Is that standard procedure the way this is laid
22 out? Or is that stated somewhere?

23 A. VANDERSLICE: We wanted to be able to pull
24 from both of them, so it's an idea that if we can get a
25 project that we think meets from the standards then we

1 don't have an impact, and hence, we don't mitigate. And
2 so then there is a second step that if a project doesn't
3 meet the standards, but we can do a sort of retained
4 elements project, then we would still pull from those
5 various mitigations as well.

6 So it's a combo, and really what we're getting
7 at there is a process where we can try to get sort of an
8 approved project, but then if that -- if we can't get
9 something that meets the standards then we would
10 basically have sort of a suite of mitigations that we
11 could apply in regard to sort of what the project is and
12 in the building of what's appropriate.

13 PRESIDENT HYLAND: Okay, and then there's two
14 follow-up questions.

15 On the individual projects, they will each
16 individually be analyzed under CEQA and impacts and then
17 --

18 A. VANDERSLICE: The -- to clarify --

19 PRESIDENT HYLAND: Or will this be the
20 (indiscernible) analysis --

21 A. VANDERSLICE: -- do you mean the two projects
22 that are 98 Franklin and 30 --

23 PRESIDENT HYLAND: No, no. In all of these
24 projects that are identified in this area that are
25 Historic Resources, when projects come forward for

1 those, they'll be a separate analysis on the impacts.
2 And if it meets the standards, then it will be
3 determined one way; if it's an Article 10 or 11, it may
4 come before us --

5 A. VANDERSLICE: So there'S no change in Article
6 10 or 11. So anything that is called out in Articles 10
7 and 11 will still go through those processes following
8 our current process. There is an ability that with the
9 HSD that projects would become ministerial, so that they
10 wouldn't necessarily have a separate CEQA document, but
11 the mitigations that are identified here, which is that
12 minimization mitigation, and then the variety of other
13 mitigations would still apply through how the ordinance
14 is implemented.

15 But that would be the case for those projects if
16 they're ministerial; otherwise, yes, probably what we
17 would do is Community Plan Exemption, which is our
18 standard process, what we do with eastern neighborhoods
19 or Central SoMa, and we have a similar process that we
20 use right now for Central SoMa projects.

21 J. RAHAIM: Yeah, and maybe if I could, and I
22 think building on what Allison was just saying, the goal
23 here was to try to build those mitigations into the plan
24 so that each project knew in advance what they were and
25 how they were offered. And so that's why there's kind

1 of a two-step approach here so that when projects come
 2 forward five, six, seven, eight, ten years from now,
 3 they will still be able to rely on the plan in the
 4 mitigations measures on that plan and the plan to move
 5 forward without having to do a more extensive
 6 environmental impact report or a larger environmental
 7 analysis. They can rely on the CPE, Community Plan
 8 Exemption.

9 The HSD, which is the Housing Sustainability
 10 District, is a relatively new concept, the one that was
 11 adopted for Central SoMa was the first one in the state.
 12 This relies on a bill that was put forward by
 13 Assemblymember Chu, I think, three years ago now that
 14 basically says if you have a recently adopted EIR and
 15 plan that establishes mitigations and does what it's
 16 supposed to do in that EIR, you can -- the City can
 17 designate a housing sustainability district where
 18 housing projects aren't completely ministerial. No
 19 separate review, and no CEQA, so we can just approve
 20 them at staff level; and I think we have a very limited
 21 timeframe, like four months to approve them. So we just
 22 established the first one in Central SoMa.

23 What the City did, the City can establish its
 24 own parameters, and the City in Central SoMa says that
 25 only a project up to 160 feet, I think, can be approved

1 that way. But -- but the hope is to do the same thing
2 here in The Hub that projects of a certain size or
3 whatever can be approved ministerially. In which case,
4 we would still have the mitigation measures to rely on
5 because, otherwise, if we didn't have the mitigation
6 measures for Historic Resources in there, we wouldn't be
7 able to consider Historic Resources in this HSD process.

8 So that's -- it's a little bit unusual. It's s
9 new animal; but that was our approach here.

10 K. BLACK: So it's akin to a programmatic EIR,
11 but there wont be any project-related EIR's to tier off
12 of it?

13 J. RAHAIM: Probably not. We don't know for
14 sure, but probably not.

15 A. VANDERSLICE: But there could be other
16 environmental documents that tier off of it, yes.

17 K. BLACK: Okay.

18 PRESIDENT HYLAND: So in the -- where in the --
19 there was just a lot of information that was presented,
20 so I may have not found it; maybe it's in here. But
21 where does it say that 1A is the first step, and if not
22 achievable, then it goes 1B, 1C, 1D?

23 If I had a proposed project, could I come and
24 say, I'm going to mitigate this through B, C, and D, and
25 please give me my approvals? Is there -- how do we make

1 sure that doesn't happen, I guess, is my question?

2 J. CLEEMAN: Sure. Jorgen Cleeman, Planning
3 Staff. In Mitigation Measure CUL-1B, it begins by
4 saying "where avoidance is not feasible as described in
5 Mitigation Measure MCUL-1A, the project sponsor of this
6 subsequent development project in The Hub Plan Area
7 shall undertake" and then it lists the additional
8 mitigation measures.

9 This wasn't explicitly covered in the
10 presentation, but it is in the text of the EIR.

11 PRESIDENT HYLAND: I didn't read that, yeah,
12 okay. It's right there cleverly disguised in the first
13 sentence.

14 J. PEARLMAN: Before you sit down, could you --
15 I don't have the text in front of me. Could you
16 identify Alternate C again? I just need a summary, not
17 a detail. I just want a basic -- 'cause I think I
18 understand. I just want to make sure I'm clear.

19 J. CLEEMAN: So Alternate C assumes reduced
20 intensity in the 18-development sites, and it also
21 requires that projects that involve Historic Resources
22 conform with the Secretary of the Interior's Standards.

23 PRESIDENT HYLAND: That's just one of the three
24 alternatives; that's not the proposed project --

25 J. CLEEMAN: Correct.

1 J. PEARLMAN: And this would assume then that --
2 I mean, a number of those sites are tiny, you know.
3 They're like a-25-by-100 site or something. So this
4 would assume that there would be different height and
5 bulk requirements for those 18 sites? Is that what this
6 is saying?

7 A. VANDERSLICE: I mean -- not that have been
8 defined, but yes. That we would basically need a
9 project that met the standards. We have flexibility on
10 that. So we haven't gotten into then establishing
11 height and bulk in relationship to the alternative but
12 that would basically be effectively the requirements.

13 PRESIDENT HYLAND: All right. And so I have one
14 last -- and we talked about this -- the language here on
15 the "retains elements." Can you -- for the sake of the
16 Commission just explain to us, this has been
17 incorporated previously, but we are in the process of
18 developing our own "retains elements" policy for
19 direction -- to give direction to the public.

20 Can you give us just a little background of how
21 we got to this language? What have we used previously?
22 And --

23 A. VANDERSLICE: So in the Central SoMa EIR,
24 there is a similar mitigation that we base this
25 mitigation on, which basically has the department and

1 the project's sponsor review whether or not saving the
2 projects -- so in the sense a project meets the
3 standards is feasible.

4 And so then we have them prepare a Feasibility
5 Report that basically is similar but not exactly the
6 same as the Alternatives process. So they look at their
7 proposed projects, they go through what their project
8 goals are, then they look at if they were to keep the
9 building of the building, how feasible is that. And
10 staff looks at that and determines whether or not that
11 project does appear feasible from a variety of angles.

12 If not, then there is a variety of mitigations
13 that are required that are similar to the ones here.
14 The process has been slightly refined to sort of point
15 out what you're saying which is that if the project
16 doesn't meet the standards but it does retain some
17 elements, then there is also additional mitigations. So
18 we refined it a little bit to make it a little clearer
19 from Central SoMa in this process.

20 And so we're -- since we have the Retained
21 Elements sort of in draft form, that would be one of the
22 documents that we could utilize from staff's review and
23 also for project sponsors to have an understanding of
24 what we mean by that.

25 Does that help clarify?

1 J. PEARLMAN: And would that -- would a project
2 like that come before the Commission? 'Cause, for
3 instance, there are many projects that are historic
4 resources that have to go through an EIR process. Often
5 that will -- almost all the time that comes before the
6 ARC.

7 Would that be a similar thing that if a project
8 was going through that or if it's not going through an
9 EIR process because this is here --

10 A. VANDERSLICE: Uh-huh.

11 J. PEARLMAN: -- then it's not going to be seen
12 as administrative?

13 A. VANDERSLICE: That's correct. At this point,
14 most of those projects are CPE's, and so they're not
15 going through the full alternative process and coming to
16 the full HBC or ARC in that regard.

17 PRESIDENT HYLAND: So our task is to provide any
18 comments. And there's two pieces, there's the Plan and
19 then there's the two specific projects, right? And the
20 two specific projects don't seem to have any issues.
21 The impacts have been mitigated or the --

22 A. VANDERSLICE: Yeah. There's not impacts to
23 Historic Resources.

24 PRESIDENT HYLAND: Right, so unless we have any
25 further comment on that, they were just pointing that

1 out.

2 Do we have any response or guidance on this to
3 staff on this?

4 J. PEARLMAN: Yeah, I had a couple thoughts. I
5 was looking at the 18 particular properties, and it
6 seemed to me that the potential of those being affected
7 in any significant way was small. And then that's why I
8 asked about that small Jessie McCoppin District because,
9 you know, those are all -- you know -- I mean, they're
10 all individual sites. So somebody would have to
11 literally have to, you know, buy out, you know, three or
12 four or eight sites or something to actually get a big
13 enough footprint to take advantage of a building, you
14 know. Because you're not going to build 160-foot high
15 building on a site that's 25 by, you know, by a 100. So
16 it seemed to me that that area was relatively safe.

17 And then the building that's on Mission Street
18 -- I forgot the number -- but the -- I forgot the name
19 of it. But there's one on Mission Street that's a
20 substantial building, that's already -- and the one on
21 Market Street are already significant buildings. And so
22 it didn't seem like there was the potential for a huge
23 amount of impact relative to the Plan, the proposed
24 Plan.

25 And that's why I was asking about -- you know,

1 because clearly Alternates A and B don't really do
2 anything, and Alternate B seems really odd because you
3 would diminish the quality of the area by not, you know,
4 by not doing streetscape things which of course doesn't
5 affect Historic Resources anyway. And then, you know, C
6 was the question -- was -- we're entrusting the staff to
7 review the process which I feel perfectly comfortable
8 with. You know, to go through that, so, you know.

9 My comments are that I don't think that any of
10 the alternatives make a whole lot of sense relative to
11 the project, but -- I don't know if that is -- that's
12 how I see it because I just think the potential impact
13 is very, very small on the Historic Resources.

14 PRESIDENT HYLAND: Commissioner Matsuda?

15 D. MATSUDA: I think that -- hello. I think as
16 a Commission we would want to put forward some
17 recommendation, so I think that standard -- or I think
18 that Alternative C would be the one that we would want
19 to recommend as --

20 PRESIDENT HYLAND: Yeah, that makes sense. I do
21 have to -- add onto what Commissioner Pearlman is
22 saying. The three projects that I asked you to restate
23 them, so I made sure of what they were. Can we talk
24 about those three? Because those were different than
25 the previous information; they came up because we have

1 more information.

2 So 10 South Van Ness, 99 South Van Ness, and 170
3 Otis. Are we evaluating the impacts during this process
4 here or what's the --

5 L. LANGLOIS: No. Just to clarify. So there
6 are two projects that are getting approval through the
7 DEIR; those are the 30 Van Ness and 98-Franklin; they
8 don't have impacts to Historic Resources. So that's why
9 we didn't bring them to you previously or in more
10 detail. The other projects are just getting up-zoned.
11 So those are the 18 sites that are proposed for
12 up-zoning. Of those, those are the sites where we have
13 identified Historic Resources, so those are called out
14 more specifically as the more direct impact of the
15 potential plan.

16 R. JOHNS: Right. So my specific, I guess,
17 there were two projects that kind of stuck out, and I
18 don't remember what the second one is, but it is one of
19 these three. So 10 South Van Ness, that is the old Ford
20 -- the old Honda dealer. And that -- this scheme is
21 showing a single tower, and I recall the proposed
22 project is a double tower, or did that get evolved -- or
23 --

24 L. LANGLOIS: I think this is just showing the
25 height and bulk. I don't believe -- but it shouldn't be

1 taken one way or the other.

2 R. JOHNS: I see, okay.

3 J. RAHAIM: Yes, just to clarify. The two-tower
4 scheme would occur if there -- if the zoning did not
5 change.

6 R. JOHNS: Got it.

7 J. RAHAIM: So the current height limit is 400
8 feet.

9 PRESIDENT HYLAND: Right. And the reason I
10 bring that up is because we were presented with the
11 information on that particular project because the
12 resource couldn't be maintained because of the impacts
13 to the foundations, and if it's a single tower, it could
14 be moved.

15 So I -- anyway. I don't know where we are at in
16 the whole process.

17 J. RAHAIM: Yeah, I think one of the challenges
18 of that site is simply, it's a triangular site, and it
19 is also affected by where the BART tube is, and so
20 there's not very many places to put the tower.

21 PRESIDENT HYLAND: But if it's a single tower
22 there's more than if there's two.

23 J. RAHAIM: Yeah, except you're getting the
24 narrow part of the tower.

25 PRESIDENT HYLAND: Right, right. Okay, and that

1 may be out of the gate, or we are not going to
2 potentially see it again?

3 And then the other one was the really cool
4 mid-century building, and I don't remember if it was 170
5 Otis or 99 --

6 J. PEARLMAN: 170 Otis was the Brutalist --

7 PRESIDENT HYLAND: Yeah, the real -- so what
8 will happen with that?

9 J. PEARLMAN: So coming out of this process, it
10 seems like that building will have to be demolished in
11 order for a tower to be built there. I don't know
12 but --

13 J. RAHAIM: I think there's also -- it's a
14 city-owned building.

15 J. PEARLMAN: It doesn't have that height?

16 J. RAHAIM: No, but we're raising the height
17 limit.

18 J. PEARLMAN: But one of the challenges is
19 seismic condition.

20 L. LANGLOIS: The zoning proposal for 170 Otis
21 is really just matching the height districts to what
22 exists today. So right now the way that the parcel is
23 mapped doesn't reflect what's on the ground, and so it's
24 actually not really an up-zoning; it's just updating the
25 heights to reflect what's there. So we're not really

1 increasing capacity.

2 J. RAHAIM: There's different zoning heights on
3 the parcel. There's like -- there's different --
4 there's split zoning on the side.

5 PRESIDENT HYLAND: So you are trying to make it
6 clear what the zoning options or requirements or limits
7 are for that site.

8 My question is, as the project comes forward on
9 that site, are we going to see it again? Or is it --
10 will there be another DEIR on that?

11 K. BLACK: I don't think we see any of these if
12 I'm understanding correctly.

13 J. RAHAIM: I think that particular zoning
14 increase was not that great, though. It would not
15 support a big tower. I think the zoning was like
16 160 feet, and that project -- I think -- I mean that
17 building is --.

18 A. VANDERSLICE: Eighty-five and it's up to 150.

19 L. LANGLOIS: And so we are just moving that 150
20 designation to the portion of the building that is
21 already that height.

22 J. RAHAIM: That's what I'm saying.

23 PRESIDENT HYLAND: Got it, okay.

24 L. LANGLOIS: Or not increasing the the capacity
25 of that site. We're just matching what exists.

1 J. PEARLMAN: And then the 99 South Van Ness.
2 Yeah, that's that really a great Art Deco -- it's a
3 storage building right now. That also seemed like, you
4 know, a very challenging sight to add on to because it's
5 so narrow, you know. It's a weird triangular shape as
6 well. And it seemed like that would be a challenge for
7 a developer to come in and try to do something big
8 there. But again, I'm not familiar with the scale of
9 it, but it's a really beautiful building, and that's
10 where I would trust the staff to say, you know, what
11 would be the process there? 'Cause that seems like it's
12 almost -- well, maybe it is landmarkable. It's really
13 an exquisite example of Art Deco building of that time
14 -- you know, of the time. So, I don't know where that
15 would leave that building. That's the only one I only
16 thought might an issue.

17 L. LANGLOIS: We can add that to the comments.

18 K. BLACK: Sorry to interrupt. Does staff ever
19 have the discretion? Assuming that this goes forward.
20 Does the staff otherwise, outside of the EIR, have
21 discretion to refer anything to the Historic
22 Preservation Commission?

23 A. VANDERLICE: You have the ability to review
24 and comment on the Environmental Review in relationship
25 to Historic Resources. So I could defer this to the

1 attorney, but, yes --

2 K. BLACK: Meaning --

3 A. VANDERSLICE: -- so we could if that was --
4 if that became an issue.

5 J. PEARLMAN: The Historic Preservation
6 Commission actually requests to review any project in
7 regards to its historic --

8 K. BLACK: And so we could request it as well.

9 J. PEARLMAN: But if it came to us it would be a
10 review, and it would just be a comment under this plan.
11 If some historic building came to us, it still would
12 just be a comment. It wouldn't be -- there'd be no
13 action, right?

14 PRESIDENT HYLAND: Right. So besides -- so we
15 have one more comment from Commissioner Matsuda. Any
16 others? I think it's well done.

17 R. JOHNS: Seems to be about it.

18 PRESIDENT HYLAND: Very good.

19 J. IONIN: There is nothing further,
20 Commissioners, we can move on to Item 8.

21 (Agenda item concluded at 1:14 p.m.)

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REPORTER'S CERTIFICATE

I, MIA T. CAMERA, certify;

That the foregoing proceedings were stenographically reported by me at the time and place therein set forth and were thereafter transcribed;

That the foregoing is a true and correct transcript of my shorthand notes so taken.

I further certify that I am not a relative or employee of any attorney or any of the parties nor financially interested in the action.

I declare under penalty of perjury under the laws of California that the foregoing is true and correct.

Dated this 19th day of August, 2019.



MIA T. CAMERA

**ATTACHMENT D: TRANSPORTATION AND
CIRCULATION**

Graph Look Up



ITETripGen Web-based App

Graph Look Up

Technical Support

Add Users

Comments

DATA SOURCE:

Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:

222

LAND USE CATEGORY:

(200-299) Residential

LAND USE :

222 - Multifamily Housing (High-Rise)

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:

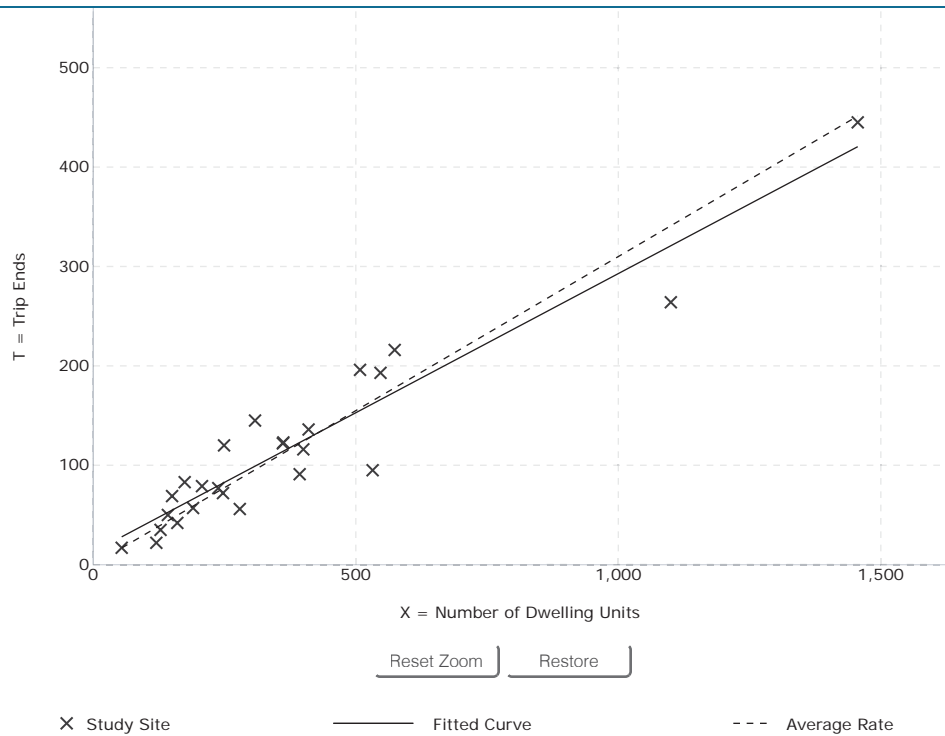
General Urban/Suburban

TRIP TYPE:

Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

Calculate



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

[more details](#)

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 7 AM and 4 PM

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
25

Avg. Num. of Dwelling Units:
372

Average Rate:
0.31

Range of Rates:
0.18 - 0.48

Standard Deviation:
0.08

Fitted Curve Equation:
 $T = 0.28(X) + 12.86$

R²:
0.90

Directional Distribution:
24% entering, 76% exiting

ADD-ONS

Try OTISS Pro

Graph Look Up



ITETripGen Web-based App

Graph Look Up

Technical Support

Add Users

Comments

DATA SOURCE:

Trip Generation Manual, 10th Ed

SEARCH BY LAND USE CODE:

222

LAND USE CATEGORY:

(200-299) Residential

LAND USE :

222 - Multifamily Housing (High-Rise)

INDEPENDENT VARIABLE (IV):

Dwelling Units

TIME PERIOD:

Weekday, Peak Hour of Adjacent Street Traffic

SETTING/LOCATION:

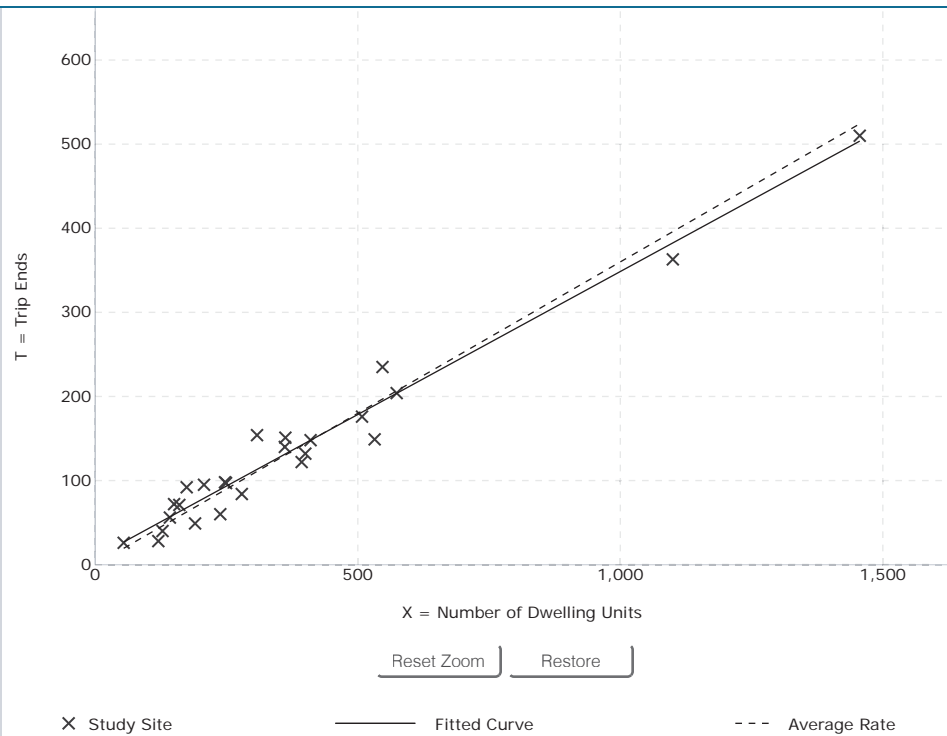
General Urban/Suburban

TRIP TYPE:

Vehicle

ENTER IV VALUE TO CALCULATE TRIPS:

Calculate



Use the mouse wheel to Zoom Out or Zoom In.
Hover the mouse pointer on data points to view X and T values.

[more details](#)

Independent Variable:
Dwelling Units

Time Period:
Weekday
Peak Hour of Adjacent Street Traffic
One Hour Between 4:00 PM and 5:00 PM

Setting/Location:
General Urban/Suburban

Trip Type:
Vehicle

Number of Studies:
25

Avg. Num. of Dwelling Units:
372

Average Rate:
0.36

Range of Rates:
0.23 - 0.53

Standard Deviation:
0.06

Fitted Curve Equation:
 $T = 0.34(X) + 8.56$

R²:
0.96

Directional Distribution:
61% entering, 39% exiting

ADD-ONS

Try OTISS Pro

MUNI MAP

San Francisco Transit Map

- Muni Metro Rail (10 minutes or less)
- Muni Rapid Bus (10 minutes or less)
- 10 minutes or less
- Every 10-20 minutes
- Every 20-30 minutes
- Peak Service (Limited hours)
- Historic Streetcar
- Cable Car
- BART/Caltrain
- Presidio Shuttle
- Line Terminals
- One way
- Nonstop
- Underground
- Metro/Rapid Stops (Accessible)
- Metro/Rapid Stops (Not Accessible)
- Point of Interest
- Hospital
- Library
- School
- Market St. Elevator

Map Projection: North American Datum 83 (NAD 83) - North American Datum 83 (NAD 83)



Treasure Island
Yerba Buena Island

Richmond Exp. Terminals
 BART, Caltrain, Muni Metro

Ferry Place
 Golden Gate Ferry, Sausalito Ferry, Tiburon Ferry

Embarcadero
 BART, Caltrain, Muni Metro, Muni Rapid Bus

Mission & Main
 BART, Caltrain, Muni Metro, Muni Rapid Bus

San Francisco Ferry Building
 Golden Gate Ferry, Sausalito Ferry, Tiburon Ferry

Caltrain Station
 BART, Caltrain, Muni Metro, Muni Rapid Bus

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File Name: **Van Ness Avenue & Hayes Street - Bicyclists and Pedestrians**

Start Date: 4/5/2017

Start Time: 7:00:00 AM

Comment 1: CITY OF SAN FRANCISCO

Start Time	VAN NESS AVE Southbound				HAYES ST Westbound				VAN NESS AVE Northbound				HAYES ST Eastbound			
	RT	TH	LT	Ped	RT	TH	LT	Ped	RT	TH	LT	Ped	RT	TH	LT	Ped
07:00	0	0	0	7	0	0	0	23	0	1	0	12	0	2	0	13
07:15	0	1	0	13	0	1	0	25	0	1	0	12	0	1	0	10
07:30	0	0	0	19	0	0	0	57	0	1	0	10	0	0	0	33
07:45	0	1	0	30	0	1	0	66	0	1	0	12	0	1	0	13
08:00	0	1	0	25	0	1	0	89	0	2	1	20	1	1	0	15
08:15	0	1	0	31	0	0	0	84	1	1	0	15	0	0	0	33
08:30	0	2	0	43	0	1	0	84	0	1	0	16	0	0	0	36
08:45	0	1	0	48	0	0	0	107	0	4	0	17	0	0	0	38
7:00 to 8:00	0	2	0	69	0	2	0	171	0	4	0	46	0	4	0	69
7:15 to 8:15	0	3	0	87	0	3	0	237	0	5	1	54	1	3	0	71
7:30 to 8:30	0	3	0	105	0	2	0	296	1	5	1	57	1	2	0	94
7:45 to 8:45	0	5	0	129	0	3	0	323	1	5	1	63	1	2	0	97
8:00 to 9:00	0	5	0	147	0	2	0	364	1	8	1	68	1	1	0	122

File Name: **Van Ness Avenue & Hayes Street - Bicyclists and Pedestrians**

Start Date: 4/5/2017

Start Time: 4:00:00 PM

Comment 1: CITY OF SAN FRANCISCO

Start Time	VAN NESS AVE Southbound				HAYES ST Westbound				VAN NESS AVE Northbound				HAYES ST Eastbound			
	RT	TH	LT	Ped	RT	TH	LT	Ped	RT	TH	LT	Ped	RT	TH	LT	Ped
16:00	0	1	0	38	0	1	1	92	0	2	0	19	1	0	0	29
16:15	0	1	0	36	0	1	0	70	0	3	0	14	0	1	0	19
16:30	0	3	0	35	0	4	0	71	0	1	0	15	0	0	1	35
16:45	0	2	0	47	0	1	0	64	0	0	0	18	0	0	0	33
17:00	0	1	0	72	1	2	0	111	0	0	0	33	1	0	0	66
17:15	0	2	0	58	0	7	0	106	0	2	0	24	0	0	0	44
17:30	0	1	0	66	0	4	0	92	0	0	0	25	0	0	1	68
17:45	0	1	0	49	0	2	0	70	0	2	0	22	0	0	0	40
4:00 to 5:00	0	7	0	156	0	7	1	297	0	6	0	66	1	1	1	116
4:15 to 5:15	0	7	0	190	1	8	0	316	0	4	0	80	1	1	1	153
4:30 to 5:30	0	8	0	212	1	14	0	352	0	3	0	90	1	0	1	178
4:45 to 5:45	0	6	0	243	1	14	0	373	0	2	0	100	1	0	1	211
5:00 to 6:00	0	5	0	245	1	15	0	379	0	4	0	104	1	0	1	218



Date: April 20, 2020

To: San Francisco Planning Commission

From: Alana Callagy and Tania Sheyner, Environmental Planning

Re: Errata to the Environmental Impact Report for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, Hub Housing Sustainability District

Planning Department File Nos. 2015-000940ENV, 2017-008051ENV, and 2016-014802ENV

Following publication of the Responses to Comments document (RTC) for the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, Hub Housing Sustainability District Draft Environmental Impact Report (Draft EIR), the Planning Department determined it was necessary to: (1) update the Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, Hub Housing Sustainability District Final EIR certification date; (2) update RTC Figure 2-5 Proposed Hub Plan Area Zoning Districts [Revised] to be consistent with what was analyzed in the Draft EIR; and (3) correct a sentence summarizing the number of impacts determined to be significant and unavoidable with mitigation. This errata addresses each of these three items.

The Environmental Planning Division of the Planning Department has determined that these clarifications and corrections do not change any of the conclusions in the EIR and do not constitute significant new information that requires recirculation of the EIR under the California Environmental Quality Act (CEQA) (California Public Resources Code section 21092.1) and the CEQA Guidelines (14 California Code of Regulations section 15088.5).

These additional staff-initiated text changes will be incorporated into the Final EIR. New revisions are noted in **red**, with deletions marked with **strikethrough** and additions noted with **underline**.

1. Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, Hub Housing Sustainability District Final EIR Certification Date

On April 9, 2020, the Planning Commission continued certification of the Final EIR to April 30, 2020.

As such, the following revision is made to the exterior and interior RTC cover pages:

Final EIR Certification Date: ~~April 2, 2020~~April 30, 2020

Additionally, the following revisions are made to the distribution memoranda accompanying the RTC:

This document, along with the Draft EIR, will be before the Planning Commission for Final EIR certification on ~~April 2, 2020~~April 30, 2020. The Planning Commission will receive public testimony on the Final EIR certification at the April 2, 2020April 30, 2020 hearing.

2. Update RTC Figure 2-5 Proposed Hub Plan Area Zoning Districts [Revised] to be consistent with the proposed reconfiguration of Veterans Commons Special Use District what was analyzed in the

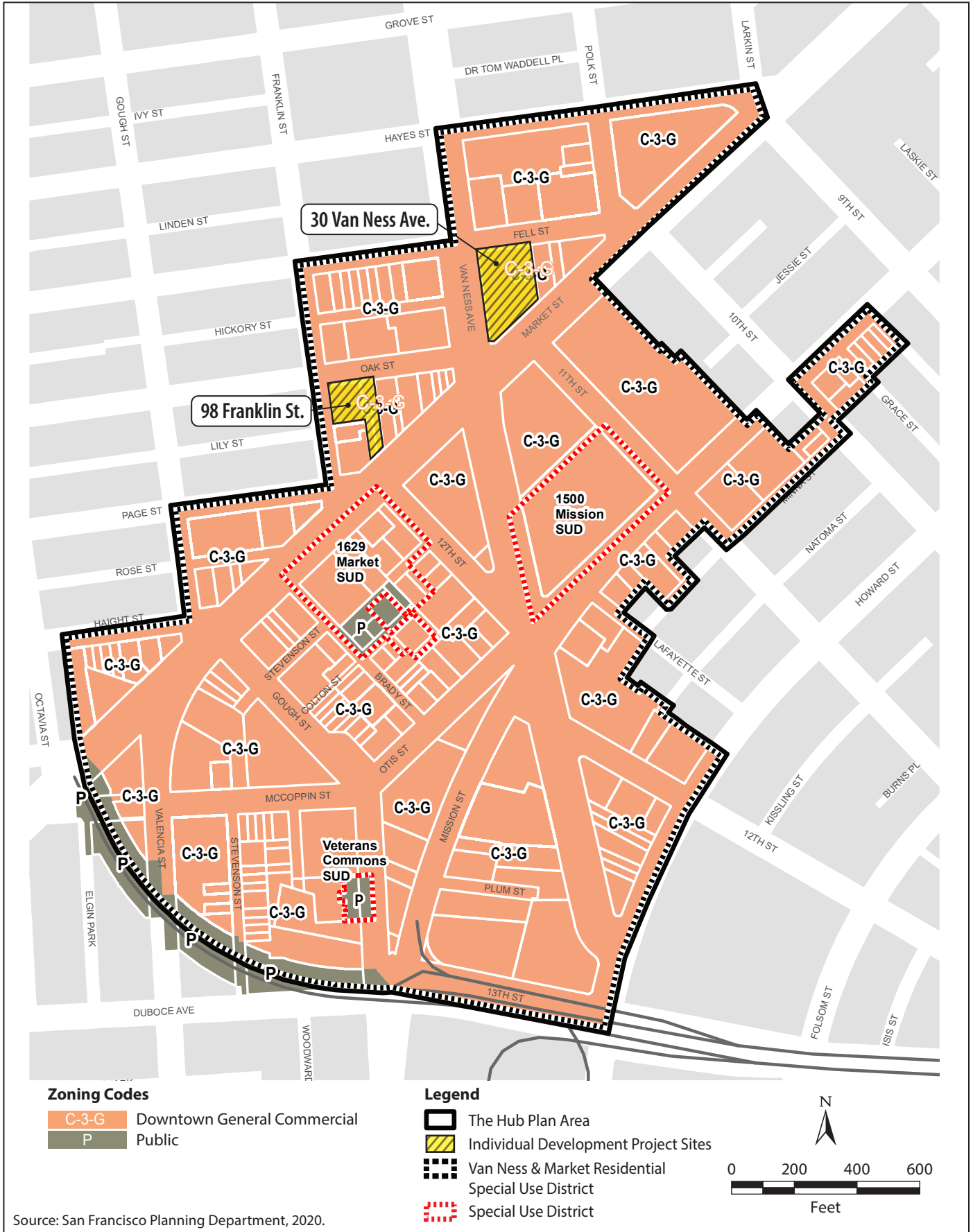
Draft EIR and inadvertently not shown on the RTC figure.

The revised figure is presented on the following page.

3. In the alternatives chapter to the Draft EIR, a sentence summarizing the number of impacts determined to be significant and unavoidable with mitigation inadvertently stated there were nine significant and unavoidable impacts when, as detailed in the Draft EIR, there are 10.

The following text change is made to the third sentence under the heading “Summary of Significant Impacts” on page 5-3 of the Draft EIR to reflect the correct number of impacts identified as significant and unavoidable with mitigation.

~~Nine~~Ten significant impacts of the proposed project would remain significant and unavoidable, even with implementation of mitigation measures.



The Hub Plan, 30 Van Ness Avenue Project, 98 Franklin Street Project, and Hub Housing Sustainability District (HSD)
 Case Nos. 2015-000940ENV, 2017-008051ENV, 2016-014802ENV

Figure 2-5
Proposed Hub Plan Area Zoning Districts
[Revised]